

West Virginia
Medical JOURNAL

January/February 2013
Vol. 109, No. 1

West Virginia State Medical Association

The Voice of Medicine
in West Virginia



Radiation Oncology

BEST
REGIONAL HOSPITALS

U.S. News & WORLD REPORT

MOUNTAIN & LAKES (WV)
CANCER
2012-13

Advanced Cancer Care *for your patients*

Nearly two-thirds of cancer patients receive radiation therapy in the treatment of their disease. **The Mary Babb Randolph Cancer Center** offers the most advanced therapies and treatment to patients in our region.

We offer:

- Intensity Modulated Radiation Therapy (IMRT) for head and neck cancers
- Stereotactic Body Radio Therapy (SBRT)
- External Beam Therapy
- Gamma-knife Radiosurgery
- Brachytherapy
- MammoSite® Radiation Therapy

We recently have added a Trilogy linear accelerator, greatly expanding our cancer-fighting capabilities. Equipped with a new image guidance system, this device allows our radiation oncology experts to see the tumor in real time for the most accurate treatment.

Physicians:

Geraldine M. Jacobson, MD,
MBA, MPH, FACR
Alexander Chi, MD
John C. Frich, Jr., MD
Carl F. Jueng, MD

Call **304-WVA-MARS** for more information or to speak with a physician.


WVUHealthcare

Mary Babb Randolph Cancer Center
wvuhealthcare.com

*Cancer Center clinics are operated by WVU Hospitals,
a member of the WV United Health System.*



**NEW
ICD-10 DEADLINE:
OCT 1, 2014**

2014 COMPLIANCE DEADLINE FOR ICD-10

The ICD-10 transition is coming October 1, 2014. The ICD-10 transition will change every part of how you provide care, from software upgrades, to patient registration and referrals, to clinical documentation, and billing. Work with your software vendor, clearinghouse, and billing service now to ensure you are ready when the time comes. ICD-10 is closer than it seems.

CMS can help. Visit the CMS website at www.cms.gov/ICD10 for resources to get your practice ready.



Why take the risk?

History has shown some insurers set premium levels low to attract business and later either filed substantial rate increases or exited the West Virginia market. Since its inception, the West Virginia Mutual Insurance Company has operated in a manner that positions it to be a source of medical professional liability insurance both today and tomorrow. Why would you entrust your livelihood to an out-of-state insurance company that may or may not act in your best interests and may not truly understand the malpractice climate of West Virginia? With all of the uncertainty in the healthcare industry, your Mutual always strives to protect your best interests.

WVMIC Significant Premium Relief

2006 includes 5% rate reduction and 10% risk management credit

2007 includes 15% rate reduction and 10% risk management credit

2008 & 2009 includes a 5% renewal credit and 10% risk management credit

2010 & 2011 includes a 12% renewal credit and 10% risk management credit

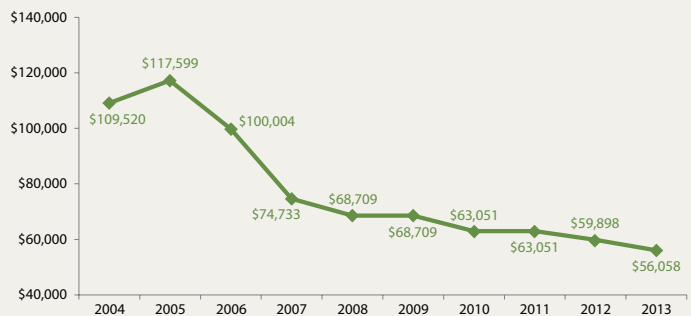
2012 includes 5% rate reduction, 12% renewal credit and 10% risk management credit

2013 includes 15% renewal credit and 12% risk management credit



Physicians Insuring Physicians
(304) 343-3000
www.wvmic.com

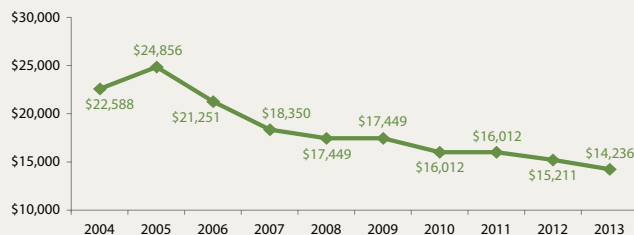
Obstetrician Premium



Surgeon Premium



Family Practice Premium



contents

January/February 2013

West Virginia
JOURNAL
West Virginia State Medical Association

Volume 109, No. 1



About the cover: *Snowshoe Mountain is a resort, located on top of Cheat Mountain in Pocahontas County, WV, which encompasses eleven thousand acres of winter wonderland. Shown nestled among snow-covered forests after a winter storm, the mountains have a total of 60 slopes and trails and receives an average of 180 inches (457 cm) of snowfall each winter. Courtesy of Morehead Photography. www.moreheadphotography.com.*

FEATURES

President's Message	4
AMA Meeting Report	5
General News	34
West Virginia University Healthcare and Health Sciences News	36
Marshall University Joan C. Edwards School of Medicine News	37
West Virginia School of Osteopathic Medicine News	38
Bureau for Public Health News	39
Physician Practice Advocate News	40
Obituaries	41
Staff News	42
WESPAC Contributors	43
New Members	43
West Virginia Medical Insurance Agency News	44
West Virginia State Medical Association Alliance News	47
Professional Directory	48
Classified Ads	49
Ten Basic Tips for Writing Scientific Papers	50
Advertisers Directory	50

Scientific Articles

- » Screening Diabetic and Hypertensive Patients for Ocular Pathology using Telemedicine Technology in Rural West Virginia: A Retrospective Chart Review
- » Niacin Induced Coagulopathy as a Manifestation of Occult Liver Injury
- » Neuropathy Following Laparoscopic Adjustable Gastric Banding: Treatment with Plasmapheresis
- » WR U TXTING B4 U CRASHED?
- » Antibiotic-Like Actions of Vitamin D
- » Bronchopulmonary Carcinoid Presenting as Dexamethasone Suppressible Cushing's Syndrome
- » Metastatic Melanoma to the Gastrointestinal Tract: Role of Surgery as Palliative Treatment

UPCOMING EVENTS

Practice Management Conference & 2013 Annual Meeting

February 15 & 16, 2013

Charleston Marriott

See Page 46 for more information

Editor

F. Thomas Sporck, MD, FACS
Charleston

Managing Editor/ Director of Communications

Angela L. Lanham, Dunbar

Executive Director

Evan H. Jenkins, Huntington

Associate Editors

James D. Felsen, MD, MPH, Great Cacapon
Lynne Goebel, MD, Huntington
Collin John, MD, MPH, Morgantown
Douglas L. Jones, MD, White Sulphur Springs
Steven J. Jubelirer, MD, Charleston
Roberto Kusminsky, MD, MPH, FACS, Charleston
Gary D. Marano, MD, FACR, Morgantown

Louis C. Palmer, MD, Clarksburg
Richard C. Rashid, MD, Charleston
Franklin D. Shuler, MD, PhD, Huntington
Steven B. Sondike, MD, Charleston
Richard A. Vaughan, MD, FACS, Morgantown
Robert Walker, MD, Charleston
David B. Watson, MD, Morgantown
Stanley Zaslau, MD, Morgantown

The *West Virginia Medical Journal* is published bimonthly by the West Virginia State Medical Association, 4307 MacCorkle Ave., SE, Charleston, WV 25304, under the direction of the Publication Committee. The views expressed in the *Journal* are those of the individual authors and do not necessarily reflect the policies or opinions of the *Journal's* editor, associate editors, the WVSMA and affiliate organizations and their staff.

WVSMA Info: PO Box 4106, Charleston, WV 25364 | 1-800-257-4747 or 304-925-0342

President's Message



Change of Pace...Change of Direction

by Hoyt J. Burdick, MD
WVSMA President
2012-2013

I've heard it said that when an election is over the outcome can best be summed up as either 'change of pace' or 'change of direction'. With over \$2 billion spent in the Presidential campaign, more than a year of daily tracking polls and nightly cable news 'experts' prognosticating the outcome in battle ground states, the 2012 election is over and it's time to assess the 'pace' and 'direction' of our nation and state.

President Obama was re-elected by an Electoral College margin of 332 to 206 (270 needed to win) and a 2.8% margin of victory in the popular vote (50.6% to 47.8%). Democrats will maintain control of the Senate (55 to 45) and the U.S. House remains in Republican hands (234 to 200). While there are many narratives being suggested to explain the outcome of the national election, the conclusion is that with no real change in the balance of power, the national election was little more than a 'change of pace.'

For physicians, one of the most salient issues providing distinction between Obama and Romney throughout the campaign was their respective positions on the ACA, federal health care reform. The President took full ownership of his policy achievement even embracing the 'Obamacare' label and Romney vowed 'repeal and replace' on day one. Following the United States Supreme Court's decision earlier this year effectively upholding the constitutionality of the health care overhaul, November 6 settled the question, at least

for now, that implementation of the ACA will move forward.

The 'pace' or 'direction' indicator is very different, however, when you look at the election results in West Virginia. Traditional thinking at the beginning of the 2012 election cycle would have given long odds on Allen Loughry winning a seat on the State Supreme Court and Patrick Morrissey defeating entrenched incumbent Darrell McGraw for Attorney General.

Loughry, a well-qualified attorney with extensive experience working for the State Supreme Court, clearly distinguished himself as a candidate that will bring sound judgment and balance to our state's highest court. WESPAC, the political action committee of the WVSMA, endorsed Loughry's candidacy and worked with the broader business and health care community to push for his election. WESPAC also endorsed the re-election of Justice Robin Davis. The physician community very much appreciated Justice Davis' vote to uphold critical elements of our medical liability reform, particularly the cap on non-economic damages. State Supreme Court Justices serve 12-year terms and with two seats on the five member Court up for election this year, the physician community is very pleased with the results and the victory of our two endorsed candidates.

A significant change is also coming to the office of Attorney General. Patrick Morrissey is a nationally recognized health care law expert whose professional career has focused

on health care policy and advocacy. With extensive experience both at the congressional level in Washington and the private sector as chair of the health care section of one of the nation's largest law firms, Morrissey was a clear choice for endorsement and support by WESPAC and the WVSMA. Morrissey was a featured keynote speaker at the WVSMA's annual Healthcare Summit in August and is poised to bring a fresh, effective voice to the office of Attorney General.

In the West Virginia Legislature, Republicans gained 11 seats in the House of Delegates, significantly narrowing the Democrat majority to a 54 to 46 margin. Not in over half century has there been such a balance of power in the West Virginia House. In the State Senate, Republicans added 3 members to increase their number to 9 seats in the 34 member State Senate. While the Democrats do maintain the majority in both the House and Senate and key leadership positions will remain the same, Republican gains will increase their proportional share of committee seats bringing true two-party balance to the critically important legislative committee work.

WESPAC also endorsed and financially supported the re-election of Governor Earl Ray Tomblin, U. S. Senator Joe Manchin, Congresswoman Shelley Moore Capito and Congressman David McKinley. Each have been an advocate at the state or federal level for policies that help preserve the physician/patient relationship

and advance access to quality health care in West Virginia.

Regardless of your personal feelings on the outcome of the federal election, it is a new day in West Virginia with the voters sending a clear message that they are ready for a 'new direction'. The physician community can and should take pride in our collective efforts of strong advocacy and WESPAC support for our endorsed candidates. WESPAC supported 98 candidates in the 2012 General Election and 95 won! Physician contributions to WESPAC peaked in 2004 at \$200,884 driven by a physician community that understood the fundamental principle that if you want good laws, you need to elect good legislators. While the total election cycle contributions have dipped,

WESPAC remains the largest physician political action committee in the state.

We must not rest on our laurels. The 2013 legislative session begins in a few short weeks. There are many critical issues on the agenda this year including the decision to add 130,000 new enrollees to Medicaid and whether the state should run a state based health insurance exchange, defer to the federal government, or advance a joint state-federal partnership.

One 'change' the next session and election cycle will bring to the WVSMA is the loss of the expert services and capable leadership of Amy Tolliver. Amy has served the WVSMA as its Government Relations Specialist and WESPAC Director for more than a decade. Through her efforts, the voice

of medicine has been much stronger at the Statehouse and at the voting booth. The professional relationships she has built with policymakers and health care advocates alike in an environment where honesty, and integrity is paramount are extremely strong. Amy is leaving the WVSMA and WESPAC to further her professional career and a new opportunity to lead the West Virginia Perinatal Partnership. We wish Amy the very best and sincerely thank her for her outstanding and dedicated service.

Make plans to join us, February 15-16 for the Physician Practice Conference and Annual Business Meeting. Keep abreast of issues critical to your practice and be involved in *your* State Medical Association!

2012 AMA Interim Meeting Report

This year's meeting was held at the Hilton Hawaiian Village in Honolulu, Hawaii. The West Virginia State Medical Association was represented by Dr. Jim Felsen, Dr. Hoyt Burdick, 2012-2013 WVSMA president and delegate to the Organized Medical Staff section, Kristen Statler, RFS, WVSMA Executive Director and State Senator, Evan Jenkins, and me.

The AMA considers the input of medical students vital to the survival of the organization, so the WV delegation appreciates the leadership of the Marshall University Joan C. Edwards School of Medicine for sending four medical students.

Friday afternoon was dedicated to the Organization of State Presidents and their Executive Directors (OSMAP). Evan Jenkins and I attended this session.

The OSMAP opened with remarks by Steven Stack, the Chair of the American Medical Association Board of Trustees on "Preliminary Thoughts re: 2012 Elections and Other AMA Perspectives".

The presentations on "State Efforts to Implement the ACA—Here Comes the Exchanges" given by the past presidents of California, Colorado, and Massachusetts drew many comments and questions from other state presidents.

Another hotly debated subject was the "AMA Scope of Practice Partnership—Current Projects," by Kai Sternstein, JD, Advocacy Resource Center and a featured state presentation by the VP of Policy and Political Affairs from the Arizona Medical Association on "Legislation, Defining Collaborative Relationships between Physicians and CRNA's".

Saturday was the official opening of the AMA House of Delegates proceedings and seminars on special topics of interest for the practicing physicians.

Sunday was filled with reference committee proceedings where resolutions are debated and acted on after a full House debate the next day.

Our president, Dr. Hoyt Burdick summarized the resolutions passed by the House:

- ◆ The AMA supports a defined contribution approach for Medicare
- ◆ Medicaid expansion to 133% of poverty level
- ◆ true physician-led teams in medical homes and reform models
- ◆ the AMA to serve as the lead organization for employed physicians
- ◆ study the "corporate practice of medicine" as it affects employed

physicians' clinical decisions and freedom of referral

- ◆ that the physician's time spent on RAC audits be compensated
- ◆ that the Medicare sequestration reductions to providers should be corrected before January 1
- ◆ prevent ICD 10 implementation (since ICD 11 is already available)
- ◆ supports mandatory immunization requirements for medical staff and physicians.

Many in the Federation are struggling to enact meaningful tort reform in their respective states. I reported at the general session of the Southeastern Delegation how WV has managed to keep intact our 2001/2003 tort reform.

I also shared how recent elections in WV resulted in pro-medicine candidates winning seats on our State Supreme Court. This is important as we continue to fight to preserve our \$250,000 cap on non-economic damages and other tort reforms.

Constantino Y. Amores, MD
Delegation Chair

Screening Diabetic and Hypertensive Patients for Ocular Pathology using Telemedicine Technology in Rural West Virginia: A Retrospective Chart Review

Rezwan Ahmed, MD

Resident Physician, Department of Internal Medicine,
Joan C. Edwards School of Medicine, Marshall
University, Huntington

Stephen Petrary, MD

Professor, Department of Family and Community
Health, Joan C. Edwards School of Medicine, Marshall
University, Huntington

Russell Fry, MD

Assistant Professor, University Eye Surgeons, Joan C.
Edwards School of Medicine, Marshall University,
Huntington

Michael Krasnow, DO, PhD

Professor, University Eye Surgeons, Joan C. Edwards
School of Medicine, Marshall University, Huntington

Acknowledgements: Lisa Krasnow, Jennifer Plymale, Amber Vance, and Dr. Robert Walker for their support and encouragement.

Disclaimer: Some of the information in this study was presented as a poster titled "Applying Telemedicine to Ophthalmology in McDowell County, West Virginia: Reducing Costs, Improving Access, and Standardizing Care" at the West Virginia Rural Health Conference in October 2010 and Marshall University Research Day in March 2011.

Abstract

Purpose: There is a disparity between the number of people who need healthcare and availability of medical services in rural areas. This paper describes the experience of using telemedicine technologies for ophthalmologic evaluation in diabetic and hypertensive patients presenting to a community health center in rural West Virginia. **Methods:** A registered nurse at a community health center in McDowell County, WV was trained to use a retinal camera to capture high-resolution digital images of the retina. Patients with diabetes or hypertension were screened during their routine primary care visits. Retinal photos were transmitted to an ophthalmologist for review and reports from the screenings were returned with

instruction for follow-up care or specialist referral when indicated. **Findings:** A retrospective chart review of 643 patients with diabetes or hypertension who were screened for ocular problems from October 2003 to December 2009 was completed. 44.8% of patients who were screened in the primary care center were identified as having 1 of 34 types of eye pathology that were previously unknown, of which 33% of patients were recommended to seek prompt attention by a retina consultant or glaucoma specialist for suspected ocular pathology. **Conclusions:** Our review demonstrates the actual benefits of telemedicine in the effective screening of diabetic and hypertensive patients for eye pathology, and our experience suggests that using distance medicine and telemedicine technologies is valuable for screening rural populations.

Introduction

Access to healthcare is a challenge for rural citizens in the United States. Approximately 25% of individuals living in America reside in rural areas. Of doctors in our nation, only 10% provide care to individuals in non-urban areas.¹ There is a disparity between the number of people who need healthcare and availability of medical services in rural areas. For the past several decades, efforts have been made to improve access for this population. In 1978, the National Rural Health Association (NRHA) was established to provide leadership for issues unique to smaller, more isolated communities.² Despite these efforts, considerable inequities remain. Retaining well-trained and highly motivated providers in rural areas has become a major problem in many small towns across the country.³

One potential approach for reducing isolation and improving access to specialty care in rural areas

lies in the application of telemedicine technology. Broadly defined as the use of telecommunications to provide medical information and services, telemedicine has been shown to help reduce the isolation gap between urban and rural areas.⁴ In April 2009, a study commissioned by the United States Chamber of Commerce looked at the potential of new technologies for healthcare solutions, and encouraged expansion of broadband-enabled telemedicine applications.⁵ This paper describes the experience of the use of telemedicine technologies for ophthalmologic evaluation of patients presenting to a community health center in rural West Virginia.

The Target Population

In West Virginia, nearly 45% of the citizens live in a rural area.⁶ Many of the residents are burdened with chronic illnesses, such as diabetes, hypertension, and cardiovascular disease. A majority of these individuals are geographically isolated and have limited access to care. McDowell County is a 535 square mile landlocked area located in the Southwestern West Virginia. Its largest city and county seat is Welch with a population of 2,180. Of West Virginia's 55 counties, McDowell ranked last in overall health outcomes.⁷ Demographically, 89.1% of county residents are Caucasian and 9.5% are African American, compared to statewide totals of 93.9% Caucasian and 3.3% African American. 40.8% of the population is below the Federal Poverty Level, and only 25% have some college education.⁸ The unemployment rate is 11.8%, and 15% of residents are uninsured. Obesity, hypertension, and diabetes are major health problems in this county,

and contribute to a considerable number of deaths yearly.^{7,8}

Methods

In May of 2001, a grant from the Minority Health Program of the U.S. Health Resources and Services Administration facilitated the formation of a partnership between Tug River Health Association in McDowell County and the Robert C. Byrd Center for Rural Health at the Joan C. Edwards School of Medicine at Marshall University (JCESOM) for the purpose of screening diabetic and hypertensive patients for retinopathy and other ocular pathology.

Primary care providers at Gary Community Health Center, affiliated with Tug River Health Association, presented a voucher to all patients diagnosed with diabetes or hypertension to participate in an eye screening program during their office visit. The patients did not need a formal referral, nor schedule another appointment with an eye doctor. A

nurse trained to use a high-resolution digital retinal camera (Topcon TRC-NW6S Non-Mydriatic Retinal Camera, Figure 3) documented high-resolution images of the fundus and used a tono-pen to record intraocular pressures. While most patients could be screened effectively without pupil dilatation, approximately 5% of patients required pupil dilation to obtain adequate imaging.⁹ A brief standard history, retinal images, and intraocular pressure value (Figure 1) was transmitted either electronically via a secure HIPPA approved T-1 line or by storage media to a board certified ophthalmologist at JCESOM. The ophthalmologist provided an interpretation of the images and recommendations were returned within 1 to 2 weeks.

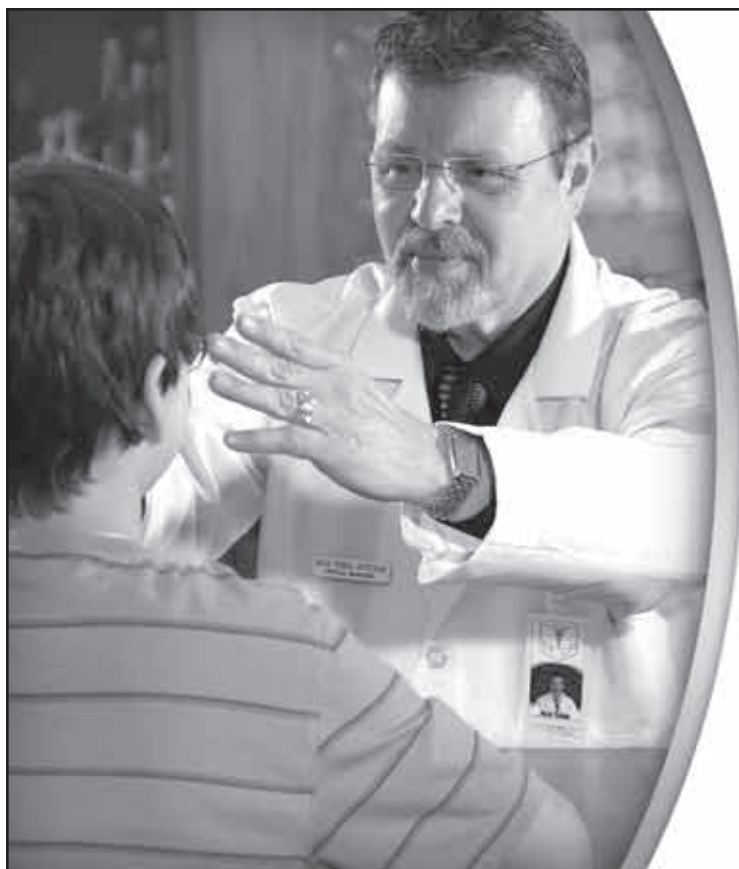
Subsequently, patients were notified of the results from their screenings. The nursing staff at GCHC assisted patients who required further evaluation by scheduling an appointment with an optometrist or ophthalmologist

as recommended. Depending on the nature of the complaint, some patients could be managed locally, while others were sent to a specialist elsewhere within the state.

A retrospective chart review was completed on all patients evaluated with the digital retinal camera at GCHC for the 7 year period from 2003 through 2009. Data regarding demographic information along with clinical diagnosis and recommendations was collected.

Results

During the 7-year study period, a total of 643 patients (Table 1) were screened in the clinic and 44.8% were identified as having an ocular problem. Though the image quality was generally very good, an estimated 5% of photos could not be used to interpret subtle changes. In these cases, the results were discarded and patients were recalled for repeat imaging.⁹ There were a total of 34 different types of eye



The sensible choice for specialized care.

Providing comprehensive pediatric and adult eye care, Eye & Ear Clinic Physicians also offers eyeglasses and contact lens prescriptions, featuring a wide selection of affordable frames and lenses.



EYE & EAR
— CLINIC PHYSICIANS —

304.343.EECP(3327) | eecpww.com

Figure 1. Screening form used at Gary Community Health Center in McDowell County, WV for Ophthalmological Review.

TUG RIVER CLINIC OPHTHALMIC PHOTOGRAPH REPORT

Photograph Date: _____ Photographer: _____ Provider: _____

Patient's Name: _____
 (Last Name) (First Name) (M. Initial)

D.O.B. _____ Age: _____ S.S.# _____
 (Month)(Day)(Year)

SC	20/		
CC	20/	TA	

Other Current Medical Conditions:

Current Medications:

SYSTEMIC/SOCIAL	
	Patient Family
ALLERGIES-DRUG	_____
ASTHMA/RESPIRATORY	_____
CARDIAC DISEASE	_____
DIABETES-ENDOCRINE	_____
HYPERTENSION/VASCULAR	_____
GIBEPATITS	_____
GU/KIDNEY STONES	_____
MUSC./ARTHRITIS	_____
SKIN CONDITIONS	_____
NEUROLOGICAL	_____
FAM. HX EYE PROBLEMS	_____
CANCER	_____
OCULAR TRAUMA	_____
STEROID USE	_____
SMOKING	_____
ALCOHOL	_____
NEURO:	ORIENTATION: INTACT / OTHER
MOOD: NORMAL, DEPRESSED, ANXIOUS, OTHER	

FUNDUS PHOTO REPORT:

Cup to Disc Ratio:		
Diabetic Retinopathy Background	Y N	
Proliferative Retinopathy	Y N	
Hypertensive Retinopathy	Y N	
Unacceptable Photograph	Y N	
Normal Fundus Photo	Y N	

Additional Comments:

Signature: _____ Date: _____

DISPOSITION:

1. Follow up photo in one year
2. Immediate referral (retina consultant)
3. Immediate referral (glaucoma specialist)
4. Ophthalmic evaluation in one month
5. PRN follow up based on clinic evaluation

Figure 3. Topcon TRC-NW6S Non-Mydriatic Retinal Camera.



pathology identified in 288 patients (Table 2). The most common finding was glaucoma suspect (34%) and the targeted problems of diabetic retinopathy and hypertensive retinopathy were present in 15.6% and 4.2% of this group respectively. Examples of typical images taken using the retinal camera are shown in Figure 2A. Based upon the specific pathology identified, the following recommendations were provided to the patients as determined by the reviewing ophthalmologist: (1) follow up evaluation in one year, (2) immediate referral to a retina consultant, (3) immediate referral to a glaucoma specialist, (4) formal ophthalmic evaluation in one month, or (5) No specific instruction. (Table 3)

Discussion

The use of digital retinal photo technology at the community health center in rural McDowell County, West Virginia resulted in the detection of previously unknown eye pathology in 44.8% of diabetic and hypertensive patients screened. All 643 patients had retinal images interpreted by a board certified ophthalmologist at the JCESOM. Of

Figure 2B. Fundus photo of the right eye showing some characteristic features of nonproliferative diabetic retinopathy, including microaneurysms, hard exudates, and intraretinal dot and blot hemorrhages.

Figure 2A. Normal fundus photo of right eye.

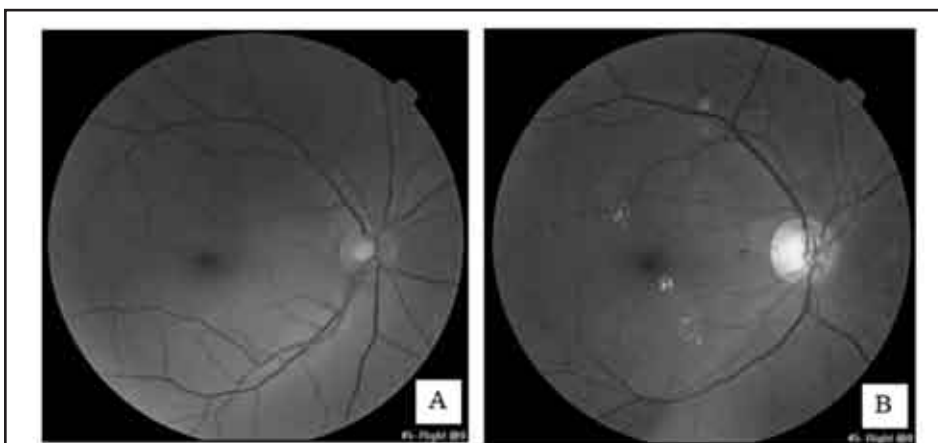


Table 1. Demographic Parameters of the Sample Population vs. General Population in McDowell County, WV

Variable	Sample Population % (N=643)	Local County %
Race⁸		
Caucasian	82.3 (529)	89.1
African American	17.6 (113)	9.5
Other	0.2 (1)	1.4
Sex⁸		
Female	58.1 (374)	51.0
Male	41.8 (269)	49.0
Age¹¹		
25-34	4.8 (31)	10.5
35-44	13.5 (87)	12.9
45-54	31.3 (201)	18.4
55-64	31.1 (200)	13.6
65-74	12.6 (81)	7.8
75+	6.7 (43)	7.8

Table 2. Number of Patients by Ocular Pathology

Ocular Pathology	Number of Patient (%)
Glaucoma	97 (33.4%)
Cataract	73(25.3%)
Diabetic Retinopathy	45 (15.6%)
Age Related Macular Degeneration	41(14.2%)
Atherosclerosis	15(5.2%)
Hypertensive Retinopathy	12 (4.2%)
Presbyopia	6 (2.1%)
Retinal Tear	6 (2.1%)
Drusen of optic nerve	5 (1.7%)
Ocular Hypertension	5 (1.7%)
Macular edema	4 (1.3%)
Medullated Nerve Fiber	3 (1.0%)
Amblyopia	3 (1.0%)
Papilledema	3 (1.0%)
Posterior Vitreous Detachment	3 (1.0%)

** [$\leq 1.0\%$ of total patient pool] Retinitis Pigmentosa, Keratoconjunctivitis Sicca, Choroidal Nevi, Histoplasmosis, Iris Nevi, Macroaneurysm, Lens Subluxation, Corneal Edema, Blepharitis, Optic Atrophy, Venous Congestion in Eye, Branch Vein Occlusion, Ocular Melanosis, Retinal Telangiectasias, Venous Stasis Retinopathy, Amourosis Fugax, Retina Vein Occlusion, Sudiferous cysts of lids, Papillitis

Table 3. Clinical Recommendations Following Screening

Instruction	Number of Patients (%)
Follow up photo in one year	96 (33.3%)
Immediate referral (retina consultant)	40 (13.9%)
Immediate referral (glaucoma specialist)	56 (19.4%)
Ophthalmic evaluation in one month	75 (26.0%)
No instruction	21 (7.3%)

the various abnormalities discovered through the ophthalmologic screening process, several were identified specifically by the use of the digital retinal camera, which may have otherwise gone unrecognized.

The screening program at the community health center is very convenient for the patients and their families. Since the screening takes place in the primary care center at the time of the regular visit, compliance with care guidelines for this population is considerably enhanced. This allows for detection of serious ocular pathology at its early stages. In the study done at the community health center, 33% of patients were recommended to seek prompt attention by a retina consultant or glaucoma specialist for suspected ocular pathology. In special cases, where the nurse visualized a bleed in the retinal vessels or measured an intraocular pressure more than 30mmHg, patients were sent to the nearest ophthalmologist for immediate care.

The overall cost of operating an eye-screening program is reasonable. In our study, the purchase of all equipment and ancillary material were supported through a one time grant of \$46,000. This allowed for the purchase of a digital retinal camera, tono-pen, and desktop computer. Continuing supply costs were minimal and included local anesthetics. Support staff were provided and trained by the community health center.

There are several challenges and obstacles to starting up an eye-screening program in a rural community using digital retinal technology. A mutually supportive partnership between a community health center and qualified ophthalmologist is essential. The primary care providers at the participating clinic must actively participate in targeting select populations and encourage their

patients to participate at the time of their regular visits. In the 7-year study, some of the physicians were more aggressive than others in recommending this technology to their patients. There must also be sufficient staff trained to use the camera and tonopener. At the community health center, limited trained staff resulted in some patients who were not screened at the time of their primary care visit when staff was absent or not available. Though some images were instantly sent over a T1 connection, using high speed internet was very costly to the participating community health center; alternatively, by sending images by mail, there was a natural delay between date of screening and reporting of results.

Further study is important to determine the specificity of this screening method, and to reduce type I statistical error. The target population may need to be expanded to include children and patients other than those diagnosed with diabetes or hypertension.

In a study by the National Association of School Nurses, results showed that the early detection of a vision problem from school age children might have sustainable educational and behavioral benefits.¹⁰ It would be interesting to do a cohort study to assess patient satisfaction with their eye screening and monitor the long term impact of the eye screening on patient's health and well-being. Additional research is needed to assess patient compliance with the ophthalmologist's recommendations and clinical outcomes.

Since diabetic retinopathy is the number one cause of blindness in working age adults in the United States, the importance of regular ophthalmologic screening in at-risk populations is evident. For a patient living in a rural community, the ability to be evaluated at their nearby

primary care health center helps alleviate transportation costs and allows for close monitoring of visual changes. Telemedicine is expected to play an important role in helping improve health for the citizens of our nation. In March 2011, WV Telehealth Alliance expanded broadband technologies to 93 locations around the state and continues to expand connectivity. Our review demonstrates the actual benefits of telemedicine in the effective screening of diabetic and hypertensive patients for eye pathology, and our experience suggests that distance and telemedicine offer a viable solution to issues of access to specialty care in rural and isolated communities

References

1. Size, T Commentary: Rural Health Can Lead the Way. *Wisconsin Medical Journal* 2002, 1-3.
2. Our Mission. <http://www.ruralhealthweb.org/go/top/about-the-nrha/our-mission>. 2007-2010. Accessed August 02, 2011.
3. Bruce TA, Norton WR. *Improving Rural Health: Initiatives of An Academic Medical Center*. Little Rock, AK: Rose Publishing Company; 1984.
4. Perednia DA, Telemedicine Technology and Clinical Applications. *JAMA* 1995; 276 (6): 483-488.
5. Davidson CM, Santorelli MJ. The Impact of Broadband on Telemedicine. <http://www.uschamber.com/sites/default/files/lra/docs/broadbandandtelemedicineapril2009.pdf>. Accessed August 02, 2011.
6. State Fact Sheet: West Virginia. <http://www.ers.usda.gov/statefacts/WV.HTM>. Updated July 22, 2011. Accessed August 02, 2011.
7. 2011: McDowell County, WV. <http://www.countyhealthrankings.org/west-virginia/mcdowell>. Accessed August 02, 2011
8. McDowell County, West Virginia. <http://quickfacts.census.gov/qfd/states/54/54047.html>. Updated April 22, 2010. Accessed August 02, 2011.
9. Terry, Gloria. Telephone interview. 02 August 2011.
10. School Vision Screening. <http://www.nasn.org/PolicyAdvocacy/PositionPapersandReports/NASNIssueBriefsFullView/tabid/445/smId/853/ArticleID/85/Default.aspx> Updated June 2006. Accessed August 02, 2011.
11. McDowell County WV Background Checks & Criminal Records. <http://www.easybackgroundchecks.com/wv-west-virginia/mcdowell-county-background-check.htm>. Accessed August 02, 2011.

We are here for you.

Providing experienced, compassionate and personalized legal services to the healthcare community. Practicing in the areas of:

- Defense Litigation
- Employment and Labor Law
- Professional Licensure and Disciplinary Matters
- Peer Review and Privileges
- Impaired Employee and Staff Issues
- Risk Assessment and Management
- Business Contracts and Negotiations



ML & S MacCorkle
Lavender
& Sweeney
PLLC

Charleston 304.344.5600

Morgantown 304.599.5600

mlclaw.com

Lisa L. Lilly, Responsible Attorney

Ear, Nose and Throat Medical and Surgical Care



EN&T
Assoc.
of Charleston, Inc.

- Audiological Testing
- Inhalant Allergy Testing & Treatment
- Hearing Aid Evaluation & Placement Services
- Computed Tomography (CT) for Sinuses & Ears
- Complete Comprehensive Services
- Board Certified Specialists

entchas.com



Michael R. Goins, MD

G. Stephen Dawson, MD

P. Todd Nichols, MD

D. Richard Lough, MD

F. Thomas Sporck, MD, FACS

Appointments > **304.340.2200**

Hearing Aid Center > **304.340.2222**

500 Donnally Street □ Charleston, WV □ Suite 200

Niacin Induced Coagulopathy as a Manifestation of Occult Liver Injury

Ehab Haj Ali, MD

Brittain McJunkin, MD

Steven Jubelirer, MD

William Hood, DO

Department of Internal Medicine, West Virginia University Health Sciences Center, Charleston Division, Charleston

Abstract

Niacin is an effective lipid-lowering agent which occasionally may cause hepatic failure. Liver enzymes are periodically tested during niacin therapy to assess for hepatic injury. We report a case of suppressed synthesis of hepatically derived coagulation factors and other liver proteins in a patient on niacin with no elevation of hepatic aminotransferases. The protein abnormalities reversed rapidly on discontinuation of niacin. It appears that niacin can cause occult liver injury without frank aminotransferase elevations, and may portend severe hepatotoxicity. Periodic assessment of prothrombin time should be considered in addition to aminotransferase levels to screen for liver injury. We believe this is the first reported case of occult hepatic injury due to extended release niacin, presenting as coagulopathy.

Introduction

Niacin (nicotinic acid) is the oldest and one of the most effective lipid-lowering agents currently available. Reduction in cardiovascular events and total mortality has been documented with niacin use.^{1,2} Statins have evolved to first line therapy for hyperlipidemia due to efficacy and relatively low adverse drug reactions. Niacin use has been somewhat limited by the adverse reaction of flushing and reports of infrequent but serious hepatotoxicity, including fulminant hepatic failure.³⁻⁵ Nonetheless, niacin continues to have

a significant niche in the management of more pronounced forms of hyperlipidemia, and in patients intolerant of statins. Currently, Niaspan is the only extended-release FDA approved niacin, and is the most commonly used form. This preparation was developed to minimize flushing and hepatotoxicity seen with immediate-release (Niacor), and "sustained-release" forms, the latter being of different composition and not FDA approved, but currently sold as dietary supplements.^{6,7}

There have been a small number of reported cases showing isolated reversible coagulopathy without overt hepatic injury in patients on niacin, both sustained and immediate release.⁸⁻¹⁰ This type of presentation is felt to represent a form of occult hepatotoxicity relating to niacin. In addition, "extraordinary" decreases in lipoproteins have been reported in some patients, thought to indicate impairment of hepatic protein synthesis as a manifestation of liver toxicity.^{10,11}

Our case of a patient on extended release niacin revealed dramatic reversible decreases in hepatic clotting factors, lipoproteins, and other proteins, without elevation of hepatic enzymes or overt hepatic injury.

Presentation of Case

A 61 year old male with a history of coronary artery disease, hyperlipidemia, Gilbert syndrome, and hypothyroidism had routine laboratory studies which revealed coagulation abnormalities. This precipitated further testing. He had no prior history of hematologic or hepatic disease.

He felt subjectively well. He consumed one drink of alcohol per day. Physical exam was normal. Medications included extended release niacin (Niaspan), 2000 mg daily (used for approximately 4 years), atorvastatin 40 mg daily, aspirin 81 mg daily, fish oil 3000 mg daily, amitriptyline 50 mg daily, levothyroxine 125 mcgm daily and multivitamins.

Initial laboratory and imaging studies follow: Hemoglobin & WBC normal, platelets 117,000/ cu mm (repeat 231,000 mg/dL), prothrombin time 14.2 seconds (INR 1.5) and 16.6 seconds (INR 1.8) seven days post vitamin K. PTT 30 seconds (21-30 s), thrombin time 26 seconds (16-25 s), fibrinogen 162 mg/dL (200-375), total bilirubin 1.4 mg/dL, direct bilirubin 0.3 mg/dL. Hepatitis panel was negative. Ultrasound of the liver and spleen was negative.

Niacin was discontinued, with subsequent resolution of laboratory abnormalities in one month.

Comparison of the most relevant laboratory studies before and after discontinuation of niacin is shown in Tables 1 and 2.

Discussion

Although there has been some recent discussion regarding niacin in statin patients already at LDL goal,¹² niacin remains a proven, protective anti-hyperlipidemic medication, particularly in the management of more serious lipid disorders, and when statins are not tolerated.^{1,2} Niacin is known to have potential for infrequent, generally dose related hepatocellular injury, usually reported as fulminant.³⁻⁵ In addition, there have been reports of

Table 1. Laboratory studies before and after discontinuation of niacin.

	PT (sec)	PTT (sec)	TT (sec)	Fib (mg/ dL)	F II (%)	F V (%)	F VII (%)	F X (%)	ALT (U/L)	AST (U/L)	T P (gm/ dL)	ALB (gm/ dL)	T C (mg/ dL)	LDL (mg/ dL)	HDL (mg/ dL)
On Niacin	16.6	30	26	162	36	21	31	56	44	52	5.9	3.3	79	28	37
4 wks post Niacin	10.7	31	25	247	—	64	112	—	25	24	6.4	3.9	188	116	53

Abbreviations: PT = prothrombin time; PTT = partial thromboplastin time; TT = thrombin time; Fib = fibrinogen; F II = Factor II; F V = Factor V; F VII = Factor VII; F X = Factor X; ALT = alanine aminotransferase; AST = aspartate aminotransferase; TP = total protein; Alb = albumin; TC = total cholesterol; LDL = low density lipoprotein; HDL = high density lipoprotein.
Normal values: PT 9.2-11.3 sec; PTT 21.1-32.0 sec; TT 16-25 sec; Fibrinogen 200-375 mg/dL; Factor II 70-130%; Factor V 60-145%; Factor VII 50-160%; total protein 6.1-8.0 mg/dL; albumin 3.5-5.0 mg/dL; ALT 17-67 U/L; AST 15-65 U/L.

Table 2. Comparison of pertinent laboratory parameters from 2007 and 2008.

	AST (U/L)	ALT (U/L)	LDL (mg/ dL)	HDL (mg/ dL)
July 2007 on Niacin	29	26	54	56
Nov. 2008 on Niacin	52	44	28	37
Dec. 2008 4 wks post Niacin	24	25	116	53

Abbreviations: AST = aspartate aminotransferase; ALT = alanine aminotransferase; LDL = low density lipoproteins; HDL = high density lipoproteins.
No prior coagulation studies were recorded.

coagulopathy relating to decreased production of hepatically derived clotting factors without overt hepatic injury, i.e. minimal or no elevations in aminotransferases.⁸⁻¹⁰ Extremely low lipoproteins also have been reported in some patients taking niacin preparations. It has been speculated that such dramatic changes in LDL/HDL may not actually reflect achievement of desirable lipoprotein levels through altered secretion, but rather impaired synthesis of apoproteins.^{10,11}

Other reversible decreases in laboratory parameters (e.g. total protein, albumin, and fibrinogen) may substantiate the impression of altered protein synthesis and may reflect serious ongoing but unapparent hepatic injury.

Our case demonstrates reversible decreases in clotting factors of

hepatic origin and marked decrease in hepatic lipoproteins (including HDL), similar to previous reports. Other decreases in hepatic proteins are noted. The elevation of indirect bilirubin reflects Gilbert syndrome, a harmless and unrelated disorder. Aminotransferase levels remained in normal range while on niacin, although slightly higher. We suspect that this patient may have progressed to hepatic failure if niacin had been continued despite surveillance with aminotransferase levels.

Based on these findings and previous reports, patients taking all forms of niacin (particularly in higher doses), should have periodic assessment of prothrombin time, in addition to hepatic enzymes. A detected coagulopathy may have significant clinical consequences (i.e. bleeding), and portend

eventual hepatic decompensation. Extremely low levels of lipoproteins may also provide a clue to occult hepatic injury. This appears to be the first case of extended-release niacin associated with this form of evident hepatic impairment.

Conclusion

Extended-release niacin as well as other niacin preparations may suppress hepatic protein synthesis resulting in coagulopathy and other abnormalities without frank elevation of hepatic enzymes. These changes may reflect underlying potentially severe occult hepatic injury. Pharmaceutical marketing for extended-release niacin may result in more frequent reported episodes of this form of toxicity. Prothrombin time should be included with hepatic enzymes in the routine monitoring of patients on niacin.

References

1. Canner PL, Berge KG, Wenger NK, et al. Coronary Drug Project Research Group: Fifteen Year Mortality in Coronary Drug Project patients: long term benefit with niacin. *J Am Coll Cardiol.* 1986;8:1245-1255.
2. Brown G, Albers JJ, Fisher LD, et al. Regression of coronary artery disease as a result of intensive lipid-lowering therapy in men with high levels of apolipoprotein B. *N Engl J Med.* 1990;323:1289-1298.
3. Hodis HN. Acute hepatic failure associated with low-dose sustained release niacin. *JAMA* 1990;264(2):181.

4. Mullin GE, Greenson JK, Mitchell MC. Fulminant hepatic failure after ingestion of sustained-release nicotinic acid. *Ann Intern Med.* 1989;111(3):253-255.
5. Clementz GL, Holmes AW. Nicotinic acid-induced fulminant hepatic failure. *J Clin Gastroenterol* 1987;9(5):582-584.
6. Guyton JR. Extended release niacin for modifying the lipoprotein profile. *Expert Opin Pharmacother* 2004;5(6):1385-1397.
7. Pieper JA. Overview of niacin formulations: Differences in pharmacokinetics, efficacy, and safety. *Am J Health-Syst Pharm.* 2003;60:509-514.
8. Dearing BD, Lavie CJ, Lohman TP, Genton E. Niacin-induced clotting factor synthesis deficiency with coagulopathy. *Arch Intern Med.* 1992;152:861-863.
9. Coppola A, Brady G, Nord HJ. Niacin-induced hepatotoxicity: unusual presentations. *South Med J.* 1994;87:30-32.
10. Tato F, Vega GL, Grundy SM. Effects of crystalline nicotinic acid-induced hepatic dysfunction on serum low-density lipoprotein cholesterol and lecithin cholesterol acyl esterase. *Am J Cardiol.* 1998;81:805-807.
11. Gray DR, Morgan T, Chretien SD, et al. Efficacy and safety of controlled release niacin in dyslipoproteinemic veterans. *Ann Intern Med* 1994;121:252-258.
12. The AIM-HIGH investigators. Niacin in patients with low HDL cholesterol levels receiving intensive statin therapy. *New Engl J Med.* 2011;DOI:10.1056/oa1107579.

Do You Need Answers?

Your Association staff is here to help! Please call or email.

Steve Brown	WVMIA Agency Manager	ext. 22	steve@wvsma.org
Robin Sadoris	WVMIA Account Manager	ext. 17	robin@wvsma.org
Evan Jenkins	Executive Director	ext. 15	evan@wvsma.org
Barbara Good	Physician Practice Advocate	ext. 11	barbara@wvsma.org
Amy Tolliver	Government Relations & WESPAC	ext. 25	amy@wvsma.org
Angie Lanham	Publications & Advertising	ext. 20	angie@wvsma.org
Mona Thevenin	Membership Director	ext. 16	mona@wvsma.org
Karie Sharp	Conference Coordinator	ext. 12	karie@wvsma.org



Faculty position / Academic Internist

West Virginia University – Charleston Division • Available November 1, 2012

The Department of Internal Medicine is seeking an Academic Internist for a full-time position at the Robert C. Byrd Health Sciences Center, West Virginia University, Charleston Division, available November 1, 2012. The position will provide academic support to a dually accredited residency program sponsored by Charleston Area Medical Center, an 838-bed tertiary hospital located in the capital city of Charleston, West Virginia. The affiliation between West Virginia University and Charleston Area Medical Center, which is the oldest regional medical campus in the nation, offers a clinical training environment for more than 80 medical students, 150 residents and other health professions.

The candidate must be Board Certified or Board Eligible. Academic Internal Medicine experience is preferred, but not required. The position requires a significant commitment to resident and medical student education in Internal Medicine and participation in appropriate academic, clinical research or other scholarly activity as may be required of faculty. West Virginia University offers a flexible job description with both inpatient and outpatient opportunities available.

Enjoy the beautiful outdoors in a culturally rich area with highly desirable residential communities and outstanding school systems.

Our compensation package is extremely competitive and commensurate with qualifications and experience. The search will remain open until a suitable candidate is identified. This position is not qualified for J-1 Visa. Please submit letter of interest and curriculum vitae to:

James Griffith, MD
 Professor and Vice-Chairman
 Department of Internal Medicine
 West Virginia University-Charleston Division

3110 MacCorkle Avenue, SE
 Charleston, WV 25304
 Fax: (304) 347-1344
 Office: (304) 347-1254
 Email: jgriffith@hsc.wvu.edu

*Women and minorities are encouraged to apply.
 West Virginia University is an Affirmative Action
 Equal Employment Opportunity Employer*

24740-J12

Build A Strong Marketing Strategy With Us



CHAMPION INDUSTRIES, INC.

YOUR COMPLETE MARKETING FULFILLMENT SOLUTION

PRINTING, MAIL SERVICE, OFFICE FURNITURE, OFFICE SUPPLIES AND PROMOTIONAL PRODUCTS

CALL A REPRESENTATIVE TODAY!

800.824.6620

AD DESIGN: CINDY COLLIER

Neuropathy Following Laparoscopic Adjustable Gastric Banding: Treatment with Plasmapheresis

Tracy Weimer MD, PhD

Assistant Professor of Neurology, WVU Hospital

Christopher Nance, MD

Assistant Professor of Neurology, WVU Hospital

David Watson, MD

Assistant Professor of Neurology, WVU Hospital

Abstract

Laparoscopic adjustable gastric banding is being increasingly utilized for therapy of obesity in the United States. It is a relatively newer technique and little is known about neurologic complications resulting from this procedure. We present a case of disabling peripheral neuropathy occurring after gastric banding. While this type of complication has been seen following older weight loss techniques, it has only rarely been documented following adjustable gastric banding.^{1,2,3,4,5,6} The patient was treated with adjustment of the lap band in combination with plasmapheresis. Plasmapheresis is a novel therapy for treatment of this type of neuropathy and resulted in significant improvement in the patients' strength and functioning.

Introduction

The laparoscopic banding technique was approved for use in the United States in 2001 and is now one of the two most frequently performed bariatric procedures.⁷ Indications for its use were recently expanded by the FDA. For patients with a weight-related disease, such as diabetes, the indications were lowered from a BMI of 35 to 30. This expands use of the device to millions of Americans. The precise mechanisms of how the band induces weight loss are unclear but it appears to produce a sensation of satiety. It is technically easy to perform and can be adjusted postoperatively to allow for more or less caloric intake.

Older surgical methods of controlling obesity include Roux-en-Y

gastric bypass, biliopancreatic bypass, gastric partitioning, and jejunio-ileal bypass. Neurologic complications, including peripheral neuropathy, optic neuropathy, encephalopathy, and myelopathy, have been well documented following these procedures.^{1,2,3,4,5,6} Fewer data exist on adverse neurologic effects following adjustable gastric banding and there are no well established therapeutic interventions for these complications when they occur. Plasmapheresis is a well established treatment for autoimmune causes of peripheral neuropathy but it is unclear if it may play a role in treatment of neuropathy following weight loss procedures.

Case presentation

A 24 year old female with a history of obesity presented for generalized weakness and inability to stand or ambulate. She had adjustable gastric banding done two years prior to onset of weakness and had lost 200 pounds. She was given a diagnosis of chronic inflammatory demyelinating polyradiculoneuropathy (CIDP) at an outside facility. She was started on prednisone and discharged to a nursing home. Prednisone produced some improvement but the patient remained weak and presented to our facility after an additional five months.

She had diffuse weakness with 2/5 strength in the legs and 4/5 strength in the arms. EMG suggested an axonal sensorimotor neuropathy. Lumbar puncture was normal. A muscle biopsy of the anterior tibialis exhibited neurogenic atrophy with no inflammatory infiltrate. She had a normovolemic, normocytic, anemia, INR of 3.4,

serum albumin of 3.3 g/dl, and normal B12 level. Sed rate was 60.

The patient was treated with 5 rounds of plasmapheresis. Prednisone was continued. The gastric band was adjusted by removing eight milliliters of fluid, allowing better passage of food through the pouch. At the time of discharge she was able to stand and at the time of clinic follow up, one month later, she was ambulatory with a walker.

Discussion

The cause of neurologic dysfunction following gastric surgery is unclear, but may be due to malabsorption. The adjustable gastric band is a strictly restrictive procedure which does not rely on malabsorption to produce weight loss. Metabolic complications of this procedure are reportedly low, and weight loss occurs more slowly than following gastric bypass.⁷ While this may decrease the risk of developing post-surgical neuropathy, clinicians should be aware that severely disabling neurologic complications may result.

Thaisetthawatkul et al. studied patients with neurologic dysfunction after bariatric surgery. Sural nerve biopsies from these patients showed increased inflammation involving the epi- and endoneurium.¹ The pathophysiology of this neural-specific inflammation is unknown. Adipose tissue produces mediators of the inflammatory system and disruption of these mediators with weight loss may be responsible.

A muscle biopsy from our patient did not show a significant inflammatory infiltrate, however, she had been treated with prednisone for five months prior to presentation.

Despite this, her sed rate remained elevated at 60. Since there was some response to prednisone therapy she was given a trial of plasmapheresis, a therapy aimed at eliminating harmful autoantibodies. She responded remarkably well to this therapy, suggesting an inflammatory component to her weakness.

The neuropathy following bariatric procedures may frequently present like Guillain-Barre, with rapid clinical deterioration and disabling weakness. The EMG studies in these patients however, suggests an axonal polyradiculoneuropathy, as opposed to the typical demyelinating picture seen with GBS.^{2,4,5,6} CSF analysis has been mixed, with only some patients showing an elevated protein. Chang et al. reported on two patients with this presentation who were treated with IVIG and plasmapheresis.⁵ One patient had a poor response, the other returned to her baseline status. Our case suggests that plasmapheresis may be an effective therapy and

further studies investigating this should be considered.

During hospitalization, our patient also underwent adjustment of the gastric band, presenting the possibility that her recovery may have been due to an improved nutritional status. In the past, neuropathy occurring after bariatric surgery has been treated with nutrient supplementation and increased caloric intake with inconsistent results.² When improvement was noted, it followed a much slower time course than that seen in our patient, suggesting plasmapheresis may expedite healing.

Conclusion

Disabling neuropathy may result following the adjustable gastric banding procedure and patients should be informed of this possible adverse effect. Treatment of these complications has not been well defined but plasmapheresis was effective in our patient. Further

studies may be considered to investigate this therapy.

References

1. Thaisetthawatkul P, Collazo-Clavell ML, Sarr MG, Norell JE, Dyck PJB. A controlled study of peripheral neuropathy after bariatric surgery. *Neurology*. 2004;63(8):1462-1469
2. Juhasz-Pocsine K, Rudnicki SA, Archer RL, Harik SI. Neurologic complications of gastric bypass surgery for morbid obesity. *Neurology*. 2007;68:1843-1850
3. Smets RM, Waeben M. Unusual combination of night blindness and optic neuropathy after biliopancreatic bypass. *Bull Soc Belge Ophthalmol*. 1999;27:93-96
4. Feit H, Glasber M, Ireton C, Rosenber RN, Thal E. Peripheral neuropathy and starvation after gastric partitioning for morbid obesity. *Ann Intern Med*. 1982;96:453-455
5. Wadstrom C, Backman L. Polyneuropathy following gastric banding for obesity. Case Report. *Acta Chir Scand*. 1989;155:131-134
6. Chang CG, Helling TS, Black WE, Rymer MM. Weakness after gastric bypass. *Obes Surg*. 2002;12:592-597
7. Tice JA, Karliner L, Walsh J, Petersen A, Feldman MD. Gastric banding or bypass? A systematic review comparing the two most popular bariatric procedures. *The Am J Medicine*. 2008;121(10): 885-893.



HELPING WEST VIRGINIA PHYSICIANS TAKE THE RIGHT PATH...

...in litigation, privacy and security compliance, certificate of need, medical staff and professional disciplinary matters, credentialing concerns, complex regulatory matters and business transactions.

HEALTH CARE PRACTICE GROUP



Flaherty Sensabaugh Bonasso PLLC
ATTORNEYS AT LAW

Edward C. Martin, Responsible Attorney

www.fsblaw.com

Charleston | Morgantown | Wheeling

WR U TXTING B4 U CRASHED?

Laura Buchanan, MD

Division of Trauma, Emergency Surgery, Critical Care,
Department of Surgery, WVU, Morgantown

Theodore Avtgis, PhD

Department of Communication Studies, WVU,
Morgantown

Dana Gray

Department of Pathology, WVU, Morgantown

Jane Channel, RN

Jon Michael Moore Trauma Center, WVU Hospitals,
Morgantown

Alison Wilson, MD

Division of Trauma, Emergency Surgery, Critical Care,
Department of Surgery, WVU, Morgantown

Abstract

Background: Texting has become popular, particularly among young adults. Texting while driving has been identified as a factor in accidents. Literature is lacking about the overall attitudes and utilization of texting.

Purpose: Understand attitudes and behaviors surrounding texting.

Methods: A survey to evaluate attitudes and behaviors concerning texting was developed in conjunction with a social scientist. The survey (2009) was administered to university freshmen via an anonymous, web based program. The study was approved by the IRB.

Results: 426 university freshmen completed the survey. 67% reported texting was more useful than speaking by phone. 53% report they text more than 50 times per day. 24% report they text more than 100 times per day. 73% report they text while driving, though only 9% responded they do so frequently. 92% believe texting affects their concentration while driving. 84% reported they are passengers when the driver texts and 75% report they do not feel safe in the car when the driver is texting. 77% disagreed with the statement "It is no big deal to text while driving." 53% reported they can not safely text and drive and 60% agreed texting while driving should be illegal. 92% reported texting was less safe than talking on the cell phone while driving.

Conclusions: Texting is commonly used by young adults, though many

believe texting while driving decreases concentration and is unsafe. A majority report to texting while driving. Injury prevention and awareness programs are needed to decrease this behavior.

Introduction

Text messaging has become a popular form of communication, particularly among young adults. The appropriateness as to how and when to use such technology is being debated. One aspect of this debate concerns the frequency with which people text while driving. This practice has garnered attention from the popular news media and government and is beginning to be discussed by social scientists.

An increasing number of tragic stories intermittently capture public attention, yet do not alter behavior. A 17-year-old driver with four passengers struck a truck head on, killing everyone. Records show a text sent and another received just before the crash.¹ A police officer was charged in a hit and run fatality. He stated he did not realize he struck a pedestrian.² In these cases, text messaging was the cause of distraction and impaired driving. There has been little quantifiable evidence regarding behaviors and attitudes relating to message behavior while driving.

Sixteen to 24 year olds represent 24% of all traffic fatalities.³ Motor vehicle crashes are the leading cause of death among American teenagers.⁴ Driver distraction is reported to have been a factor in 16% of fatal crashes, with the greatest proportion of distracted drivers under age 20.⁵ A study from Virginia Tech Transportation Institute, suggests the risk of crash while texting and driving is 23.2

times as high as non-distracted driving.⁶ As the availability and affordability of technology and ever-widening service areas increase, the number of fatalities may increase.

The purpose of our study was to quantify behaviors of young people regarding text messaging in general and while driving. We sought to quantify attitudes about behaviors when performed by themselves and others.

Materials and Methods

A survey targeting the attitudes and behaviors associated with text messaging was developed. This measure was reviewed by a social scientist; an expert in communication, to evaluate for content and face validity and minimize social desirability bias. The survey was administered in 2009 to university freshmen via an anonymous, web-based program. The survey contained 23 questions. Six questions queried only factual information. Ten questions queried text messaging related behaviors (Table 1) and seven queried attitudes (Table 2). IRB approval was granted for this study.

Results

Four hundred twenty-six university freshmen completed the survey. The average age of initial cell phone ownership was 14 \pm 3.8 years old. Respondents stated they learned to text at age 15 \pm 3.2 years of age. Sixty-seven percent reported that texting was more useful than speaking by phone. Eighty-three percent reported unlimited text messaging minutes. Seventy-nine percent reported that the device and minutes are paid by another

Table 1 Text Messaging Related Behaviors

I text the following number of times per day:	Less than 25	108 (25.3%)
	25-50	90 (21.1%)
	50-75	74 (17.3%)
	75-100	49 (11.5%)
	More than 100	103 (24.1%)
I text another person who is in the same room:	No = 248 (58.2%)	Yes = 174 (40.8%)
I text during class:	No = 112 (26.2%)	Yes = 309 (72.5%)
I text during recreational activities:	No = 172 (40.3%)	Yes = 251 (58.9%)
I text while driving:	No = 215 (50.5%)	Yes = 208 (48.8%)
While I am driving, I text:	Never = 113 (26.5%)	
	Infrequently = 77 (18%)	
	Seldom = 172 (40.4%)	
	Frequently = 38 (8.9%)	
I ride in cars with drivers who text while driving:	Never = 68 (16%)	
	Infrequently = 106 (24.9%)	
	Seldom = 163 (38.3 %)	
	Frequently = 86 (20.2%)	

person, primarily the parents. Five percent reported a cell phone bill exceeding \$500 in one month. Eighty-eight percent reported they had taught adults how to text. Fifty-three percent reported texting more than 50 times per day with 24% reporting texting more than 100 times per day. Seventy-six percent reported texting another in the same building with 41% texting another person within the same room. Seventy percent report never turning off the cell phone. Seventy-three percent report texting during class while only 59% text during recreational activities.

In terms of driving related text-messaging behavior, 73% report texting while driving. Ninety-two percent believe texting affects their concentration while driving. Eighty-four percent reported they are passengers when the driver

texts and 75% report they do not feel safe when the driver is texting. Seventy-seven percent disagreed with the statement "It is no big deal to text while driving." Fifty-three percent reported they cannot safely text and drive and 60% agreed texting while driving should be illegal. Ninety-two percent reported texting was less safe than talking on the cell phone while driving.

Discussion

Text messaging and cell phone use are among the most ubiquitous forms of communication used by young adults. There are different levels of sensory coordination associated with each mode. An interpersonal conversation within the same vehicle primarily requires the senses of sight and sound. Although the incorporation

**Enjoy A
Good Read!**

**HISTORIC
OLD-TIME
WEST VIRGINIA**




Stories of a West Virginia Doctor
by Harold D. Almond, MD

Tender Loving Care: Stories of a West Virginia Doctor, Volume Two
by Greenbrier Almond, MD

Available in bookstores around the State,
including Tamarack.
Also available on Amazon.com,
or write to
BETH ALMOND FORD
ALMOND POSTCARDS & BOOKS
PO Box 714
Meadows of Dan, Virginia 24120
\$15.00 plus \$3.50 shipping and handling
Checks, cash and
Paypal (almond@centurylink.net)

Table 2 Text Messaging Related Attitudes

I find texting more useful than communicating by phone:	No = 138 (32.3%)	Yes = 285 (66.9%)	
I believe texting while driving affects my concentration:	A lot = 208 (48.8%)	Somewhat = 180 (42.3%)	Not at all = 33 (7.7%)
I feel safe while riding with drivers who text while driving:	False = 321 (75.3%)	True = 105 (24.6%)	
I feel it is no "big deal" to text while driving:	False = 329 (77.2%)	True = 95 (22.3%)	
I believe I can safely text and drive at the same time:	False = 266 (53%)	True = 156 (36.6%)	
I DO NOT believe it should be illegal to text while driving:	False = 254 (59.6%)	True = 168 (39.4%)	
I feel it is safer to text while driving than to talk on my cell phone:	False = 390 (91.5%)	True = 34 (8%)	

of senses may seem to be a distractor to efficient driving, both participants are bound by the same stimuli. Both are experiencing the contextual elements such as road conditions, speed, and traffic patterns that are otherwise void in mediated channels, such as texting and cell phones⁷

Utilizing communication mediated channels requires the same sensory functions as a face-to-face conversation but with different emphasis on each sense and occurs in a different physical environment. Texting relies heavily on touch and sight with less emphasis on hearing. Also, only one person is being influenced by the context of the driving experience. During cell phone conversations, the primary senses used are touch and hearing while text messaging requires the utilization of touch and sight.

Over a half-dozen states have passed legislation outlawing hand-held use of cell-phones while driving. Laws against texting while driving have been passed by over 14 states. Incredibly, a 2008 survey found that only 63% of drivers planned to abide by

laws prohibiting cell phones.⁸ Legislation alone cannot be the only solution as evidenced by the continued problems with driving while intoxicated.

Overall these data are somewhat confounding. Many respondents (73%) report they text while driving while 92% believe that the behavior has a negative effect on their driving. Over half believe this behavior is not safe (53%) and should be illegal (60%). These findings are consistent with data which indicate younger respondents tend to engage in rationalization when weighing the risk/benefit ratio of behavior. According to the Extended Parallel Process Model,⁹ when faced with threatening situations, people will engage in fear control (behaviors targeted at reducing the fear but not the danger), or danger control (behaviors that actually reduce the susceptibility to the danger). This data reflect a fear control process as most respondents believe that texting while driving is unsafe when they are passengers in vehicles where the driver is texting yet report that they text

while driving. This meets the definition of risk taking behavior.

Our study does have significant limitations. It was a study that relied on honest self reporting of attitudes and behaviors. Though anonymous, there is the possibility of bias from the respondents. There was a 10% response rate and though this is a common level of participation, there may be a selection bias in those who responded. The diversity of freshmen at this university would reflect both urban and rural cultural backgrounds; however, we do not have specific background of those who responded to the survey. This was purely an observational study.

This study is unique in that it probes both behaviors and attitudes. It examines text utilization overall and situations considered risk taking. It is informative that the overall attitude is that texting is useful, but inappropriate when occurring in high-risk activities. However, despite that cognitive knowledge, many continue to participate in the activity of texting while driving. Unfortunately, this indicates that it is not a lack of knowledge of the dangers of

this activity, but an informed choice. This will make behavior modification more challenging. This study represents a beginning in understanding how attitudes and behavior intersect and may serve as a starting point for the development of effective educational tools targeted towards changing the high risk texting behavior of young adults.

References

1. FOXNews. *Text Messaging May Be Factor in Fatal Teen Car Crash* [News Articles Web site]. July 15, 2007. Available at: <http://www.foxnews.com/story/0,2933,289365,00.html>. Accessed 12/3/2009.
2. Hanna M. Officer charged in hit-run fatality [*The Boston Globe* Web site]. July 17, 2007. Available at: http://www.boston.com/news/local/articles/2008/07/17/officer_charged_in_hit_run_fatality/. Accessed 12/3/2009.
3. National Highway Traffic Safety Administration. *Traffic Safety Facts 2006 Data*. [NHTSA Web site]. March 2008. Available at: <http://www-nrd.nhtsa.dot.gov/Pubs/810809.PDF>. Accessed 12/3/2009.
4. The Insurance Institute for Highway Safety. *Fatality Facts 2007: Teenagers*. [Web site]. 2007. Available at: http://www.iihs.org/research/fatality_facts_2007/teenagers.html. Accessed 12/3/2009.
5. National Highway Traffic Safety Administration. *An examination of driver distraction as recorded in NHTSA databases*. September 2009; DOT HS 811 216.
6. Box, S. *New data from Virginia Tech Transportation Institute provides insight into cell phone use and driving distraction*. [News Story Web site] July 29, 2009. Available at: <http://www.vtnews.vt.edu/story.php?relyear=2009&itemno=571>. Accessed 10/8/2009.
7. Infante DA, Rancer AS, Avtgis TA. *Contemporary Communication Theory*. Dubuque, IA: Kendall-Hunt Publishing; 2010.
8. Cruz G, Oloffson K. Driving us to distraction. *Time*. 2009;174:45-46.
9. Witte K. *Fear as motivator, fear as inhibitor: Using the extended parallel process model to explain fear appeal successes and failures*. In: Andersen PA, Guerrero LK, Andersen PA, Guerrero LK, eds. *Handbook of Communication and Emotion: Research, Theory, Applications, and Contexts*. San Diego, CA US: Academic Press; 1998:423-450.

It Doesn't Take a Big Investment to get a state-of-the-art EMR system.



Physician's Business Office utilizes **Centricity® EMR by GE Healthcare**. We provide it all, access to EMR without large up-front investments in software and servers. In addition, you will get training and a team of support personnel all for a simple monthly fee. Give us a call to see how we can help you get to the next level in patient care.

Physician's 
BUSINESS OFFICE

Electronic Medical Records • Practice Management

3211 Dudley Avenue, Parkersburg, WV 26104
Call Jill Redinger (304) 482-8045 or Jeff Matheny (304) 422-0578
web: physiciansbusinessoffice.com • e-mail: jill@pbo.bz

Antibiotic-Like Actions of Vitamin D

Franklin D. Shuler MD, PhD

Director, Orthopaedic Research, Associate Professor of Orthopaedic Trauma, Associate Program Director, Orthopaedics, Medical Director, Geriatric Fracture Program, Joan C. Edwards School of Medicine, Marshall University, Huntington

Josh Hendrix, MSII

JCESOM, Marshall University

Sammy Hodroge, MSII

JCESOM, Marshall University

Adam Short, MSIV

JCESOM, Marshall University

Abstract

Vitamin D is a secosteroid hormone that has expanding importance for a healthy lifestyle and disease prevention. A multitude of studies have highlighted that vitamin D acts not only in bone and calcium homeostasis but is critically important for human immunity. The discovery that the storage form of vitamin D (25-hydroxyvitamin D₃) can be locally converted to the active form (1,25-hydroxyvitamin D₃) in immune cells, epithelial cells and numerous other non-renal tissues highlights the importance of maintaining sufficient stores. When responding to a specific external stimulus, like bacterial invasion, intracrine synthesis of active vitamin D has the ability to regulate gene expression providing a specific response and directing cellular actions. These responses include the generation of antimicrobial peptides with production of these peptides dependent on vitamin D status. Vitamin D deficiency is associated with an increased rate of infection. This paper highlights the antibiotic like actions of vitamin D and importance of vitamin D sufficiency.

Introduction

Vitamin D can be obtained through diet in the form of D₂ (ergocalciferol, plant form) or D₃ (cholecalciferol, animal form) with D₃ more efficiently converted to the storage form 25-hydroxyvitamin D₃ or 25(OH)D. Unfortunately, diet provides very little of this necessary nutrient with approximately 80-90% of vitamin D₃ made endogenously

in the epidermis after exposure to the UVB rays in sunlight.¹ Due to West Virginia's location, from mid-October to mid-March negligible vitamin D is produced through cutaneous synthesis due to the decrease in atmosphere penetration of UVB rays. Whether cutaneously produced or injected, vitamin D₃ is bound to Vitamin D Binding Protein (VDBP) and circulated throughout the body.² Once vitamin D₃ reaches the liver, hydroxylation by CYP27A1 occurs to form 25(OH)D which is the major circulating form and best indicator of vitamin D status. Sufficiency is defined as > 30ng/ml.^{1,2,4} A second enzyme, CYP27B1, is found in over 30 cell types and acts to further metabolize 25(OH)D to form the locally produced intracrine 1,25(OH)₂D₃ which is the active form of vitamin D.^{1,3,4} Unlike the intracrine mechanism, the endocrine mechanism of vitamin D activation is in the proximal convoluted tubules of the kidneys where CYP27B1 is directly regulated by calcium and indirectly by PTH, linking vitamin D to a role in calcium homeostasis. Since its discovery, local production of active vitamin D has been shown to be important for optimal cellular functioning.

Vitamin D, Immunity and Toll-like Receptors

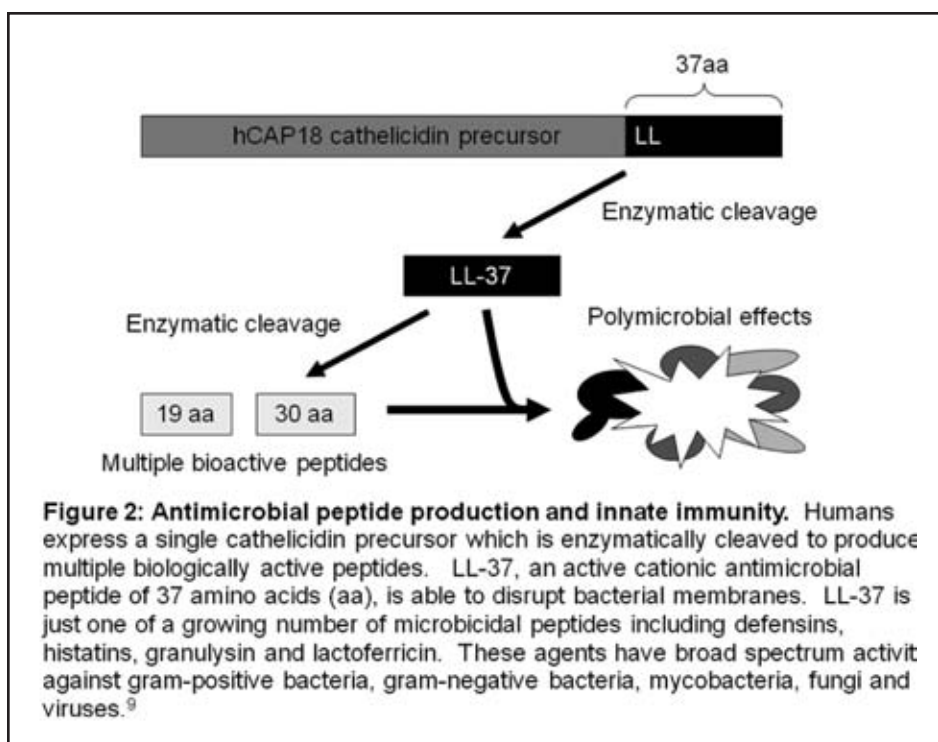
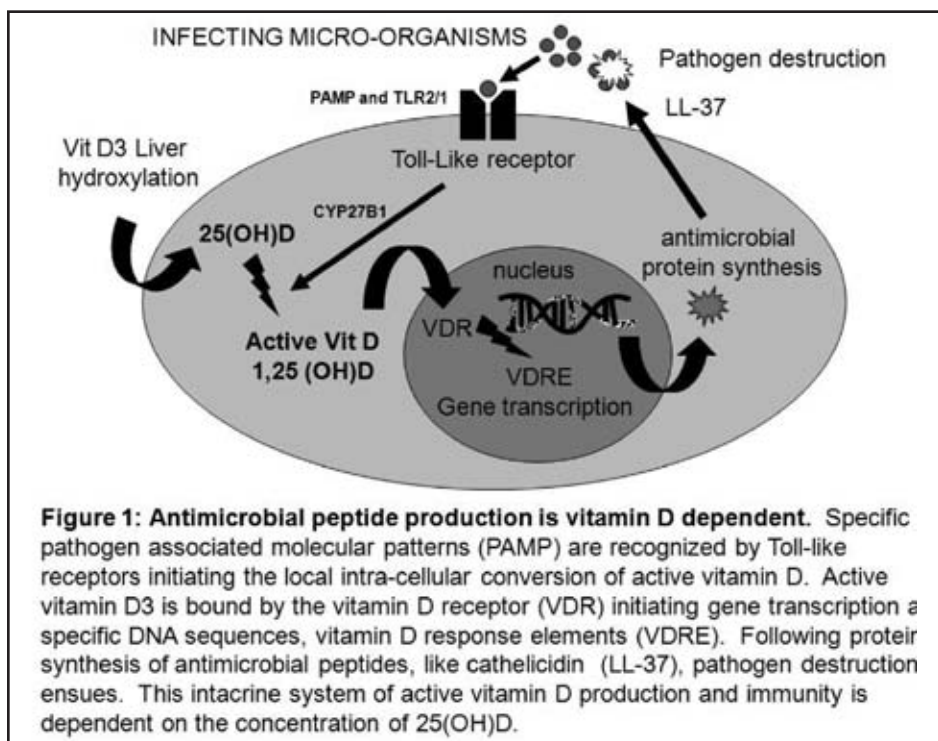
Active vitamin D has been shown to play a direct role in regulating transcription of approximately 3% of the human genome in over 30 different tissue types through vitamin D response elements (VDRE) on genes.^{2,5} Among its effects, vitamin D₃ has been found to be an immune regulator with the ability to stimulate antimicrobial defense in epithelial barriers.⁶ Of note,

antimicrobial actions of sunlight and vitamin D are not new concepts. In 1903, Dr. Niels Ryberg Finsen won the Nobel Prize for his work on the use of concentrated photo irradiation to cure lupus vulgaris, a cutaneous form of tuberculosis.⁷

Vitamin D's role in innate immunity begins with toll-like receptors (TLRs). Found on many white blood cells, the ability of these receptors to recognize certain pathogen associated molecular patterns (PAMPs) such as lipopolysaccharides and flagella allows the body to respond to pathogens regardless of prior exposure. In the case of invading organisms such as *M. tuberculosis*, the TLR1 and TLR2 receptors on macrophages and monocytes recognize the bacterium and form a heterodimer. In addition to stimulating phagocytosis, the heterodimer induces the expression of CYP27B1 and vitamin D receptor (VDR). The resulting increase in local 1,25(OH)₂D₃ and VDR expression creates an intracrine system that increases the oxidative burst potential of monocytes, recruits other immune cells to fight infection, and induces formation of natural antimicrobial peptides - most notably cathelicidins and human defensins.⁸

Vitamin D and Antimicrobial Peptide Production

Protection against assault from microbial pathogens involves a complex series of skin, mucosal surface and immune cell interactions that produce antimicrobial peptides and proteins in response to specific stimuli (see **Figure 1**, PAMP). In macrophages and monocytes, antimicrobial peptide production by the vitamin D intracrine system is best demonstrated by



the production of hCAP18, a cathelicidin antimicrobial peptide (CAMP) precursor that is cleaved to release LL37 (Figure 2).

LL37 has many protective mechanisms. A largely cationic

peptide, it can act as an antibiotic by disrupting the membranes of microbes through its interaction with their negatively charged capsular polysaccharides.¹⁰ It also protects against symptoms of infection by

neutralizing the fever-producing endotoxin of gram negative bacteria.⁸ By stimulating chemokine and cytokine production, LL37 can recruit other cells to participate in immune responses.¹⁰ Intracellularly, CAMP is able to stimulate autophagy which allows macrophages and monocytes to destroy intracellular organelles, proteins, or phagocytosed bacteria.¹¹ This is particularly important when one considers *M. tuberculosis* persists in macrophages by preventing autophagy.⁷

In addition to CAMP, 6 α -defensins and 4 β -defensins with anti-microbial properties are also induced by the 1,25(OH)D intracrine system.⁸ These peptides can act synergistically with cathelicidin to disrupt microbial membranes and stimulate autophagy.¹¹

Vitamin D, Immunity and Epithelial Barriers

Similar to macrophages and monocytes, vitamin D is closely tied to the immunological function of epithelial barriers such as the respiratory epithelium, skin, and placenta.¹⁰ In addition to strengthening the connections between the epithelial cells, vitamin D can stimulate the formation of antimicrobial peptides similar to those seen in macrophages and monocytes.⁸ In the lungs, normal human bronchial epithelial cells can be induced by 1,25(OH)D to produce CAMP. This is especially significant when considering populations who frequently experience respiratory infections. Cystic fibrosis patients, for example, may benefit from vitamin D-induced CAMP production to help combat infection by *Pseudomonas aeruginosa*.¹⁰

Epithelial keratinocytes of damaged skin are also strong producers of CAMP. Factors released from injured cells promote the formation of CYP27B1, leading to a local increase in 1,25(OH)D. This rise in active vitamin D levels

increases the keratinocyte expression of TLR2 and TLR4 which prepares the epithelium to react to potential pathogens.¹² If TLR2 is activated, CAMP is produced by a mechanism similar to that of macrophages and monocytes and, LL37 stimulates keratinocyte migration and repair of damaged epithelium.¹⁰

Decidual and trophoblastic cells of the placenta constitutively express CYP27B1 to maintain a high level of 1,25(OH)D and therefore a high level of CAMP. This antibacterial environment could enhance the placenta's function as a barrier to preempt fetal infection from microbes such as *Listeria monocytogenes* and Group B *Streptococcus*.¹²

Vitamin D Stores and Seasonal Immunity

Vitamin D may also contribute to the seasonality of infections. Influenza epidemics for example, long noted to occur during the winter months, were historically attributed to increased transference from populations collecting indoors to avoid the cold.¹³ However, this hypothesis could not explain a 1977 study in which individuals given a live attenuated influenza vaccine in the winter were 8x more likely to display signs of infection

than when given the same vaccine in the summer.¹⁴ In years since, extensive work has detailed the global absence of influenza epidemics during months with the greatest sunlight intensity.¹⁵ This has helped implicate sunlight and corresponding vitamin D levels as a contributor of influenza's seasonality. As expected, vitamin D levels have been shown to be lowest during peak times of infection, and it is hypothesized that the decreased vitamin D levels lead to lower antimicrobial peptide and protein levels reducing one's ability to combat infection.¹⁶ Similarly, lower vitamin D levels could explain why individuals are more susceptible to live attenuated virus vaccines in the winter.

Like influenza, studies have also linked septicemia with UVB activated vitamin D. William Grant of the Sunlight, Nutrition and Health Research Center found that septicemia rates were highest in the winter and in the northeastern US, and were lowest in the summer and in the southwestern US – corresponding to the areas of low and high UVB levels respectively. Further supporting his conclusions, African Americans, who have decreased ability to activate vitamin D in the presence of UVB, were more likely than white Americans

to get septicemia.¹⁷ More recent studies have elaborated on this connection by finding a high prevalence of decreased vitamin D binding protein levels in addition to vitamin D deficiency in patients with sepsis.¹⁸ Randomized controlled clinical trials are currently in progress to establish the effect of vitamin D supplementation on ICU septic patients.

Several studies have investigated vitamin D supplementation's ability to prevent infection. One double blind trial of 208 women showed that no individuals reported an upper respiratory infection (URI)/influenza infection during the winter after receiving supplementation of 2,000 IU of vitamin D daily for a year; <5% reported URI/influenza during the winter after taking 800 IU, and >20% reported URI/Influenza during the winter when given the placebo.¹⁹ In a much more extensive study, a survey of 18,883 individuals 12 years and older showed that those with serum 25(OH)D levels of ≤ 10 ng/mL had 55% increased risk of having a recent URI compared to those with a serum 25(OH)D level of ≥ 30 ng/mL.²⁰ In addition to preventing influenza, vitamin D therapy has been shown to modulate disseminated intravascular coagulation and

THE
AMA
IS
HERE.



Preserving physician-led health care teams

The American Medical Association is proud to help the West Virginia State Medical Association oppose legislation that threatens physician-led health care teams. Patients benefit from a collaborative health care team—led by the education, expertise and clinical experience of a physician.

Be a part of it. ama-assn.org/go/memberadvocate



inflammatory cytokines in animal models of sepsis.¹⁸

Vitamin D Sufficiency

The most plentiful and stable metabolite of vitamin D is 25-hydroxyvitamin D and it is used as the primary indicator of vitamin D sufficiency (defined as 25(OH)D > 30ng/mL).^{21,22,23} Safety research by the Mayo Clinic supports an upper limit of up to 10,000 IU of vitamin D3 daily with the National Academy of Sciences recommending an upper intake level of 4,000 IU per day.²² Supplementation protocols for insufficiency are highlighted in reference 23.

Summary

Local production of active vitamin D is critical for human immunity. The apparent link between vitamin D stores and immunity comes from the ability of active vitamin D to induce several components of the innate immune system such as cathelicidin, defensins, and other genes that control oxidative burst potency. This link has been strengthened by discovering TLRs' role in locally increasing active vitamin D levels to create an intracrine system. It is becoming apparent that vitamin D sufficiency is important in many facets of optimal human health and immunity including the impact of seasonal changes on communicable diseases.

Acknowledgement: The authors would like to thank Dr. Matt Wingate for critical review of the manuscript

References

- Shroff R, Knott C, Rees L. The virtues of vitamin D – but how much is too much? *Pediatr Nephrol* 2010; 25:1607-1620.
- Norman A. Sunlight, season, skin pigmentation, vitamin D, and 25-hydroxyvitamin D: integral components of the vitamin D endocrine system. *Am J Clin Nutr* 1998; 67:1108-1110.
- Gombart A. The vitamin D-antimicrobial peptide pathway and its role in protection against infection. *Fut Microbiol* 2009; 4:1151.
- Webb AR, Kift R, Durkin MT, et al. The role of sunlight exposure in determining the vitamin

- D status of the U.K. white adult population. *Brit J Dermatol* 2010; 163:1050-1055.
- Calvo M, Whiting S, Barton C. Vitamin D intake: a global perspective of current status. *J Nutr* 2005; 135:310-316.
- Schauber J, Dorschner RA, Coda AB, Buchau AS, Liu PT, Kiken D, Helfrich YR, Kang S, Elalieh HZ, Steinmeyer A, Zugel U, Bikle DD, Modlin RL, Gallo RL. Injury enhances TLR2 function and antimicrobial peptide expression through a vitamin D-dependent mechanism. *J Clin Invest* 2007; 117:803-811
- Spector, S. Vitamin D and HIV: letting the sun shine in. *Top Antivir Med* 2011; 19(1):6-10
- Schwalfenberg, G. K. A review of the critical role of vitamin D in the functioning of the immune system and the clinical implications of vitamin D deficiency. *Mol Nutr and Food Res* 2010; 55:96-98.
- Braff MH, Gallo RL. Antimicrobial peptides: an essential component of the skin defensive barrier. *Curr Top Microbiol Immunol* 2006; 306:91-110
- White, J. H. Vitamin D as an inducer of cathelicidin antimicrobial peptide expression: Past, present and future. *J Steroid Biochem Mol Biol* 2010; 121:234-238
- Hewison, M. Antibacterial effects of vitamin D. *Nat Rev Endocrinol* 2011; 7:337-345
- Hewison, M. Vitamin D and the immune system: new perspectives on an old theme. *Endocrin Metab Clin* 2010; 39(2):265-379
- Andrewes C. *The Common Cold*. New York: Norton, 1965.
- Shadrin AS, Marinich IG, Taros LY. Experimental and epidemiological estimation of seasonal and climatogeographical features of non-specific resistance of the organism to influenza. *J Hyg Epid Microb Im* 1977; 21:155-161.
- Hope-Simpson R. The role of season in the epidemiology of influenza. *J Hyg* 1981; 86(1): 35-47.
- Cannell J, Vieth R, Umhau C, et al. Epidemic influenza and vitamin D. *Epidemiol Infect* 2006; 134(6): 1129-1140.
- Grant, W. B. Solar ultraviolet-B irradiance and vitamin D may reduce the risk of septicemia. *Dermatoendocrinol* 2008; 1(1):37-42
- Watkins RR, Yamshchikov AV, Lemonvich TL, Salata RA. The role of vitamin D deficiency in sepsis and potential therapeutic implications. *J Infect* 2011; 63:321-326
- Aloia J, Li-ng M. Correspondence. *Epidemiol Infect* 2007;135(7): 1095-1098
- Barclay L, Lie D, Martin B. Vitamin D levels may be inversely linked with recent upper respiratory tract infection. *Arch Intern Med* 2009; 169:384-390.
- National Academy of Science. Dietary Reference Intakes for Calcium, Magnesium, Phosphorus, Vitamin D, and Fluoride. Washington, DC: National Academies Press; 1999.
- Lappe JM, Travers-Gustafson D, Davies KM, et al. Vitamin D and calcium supplementation reduces cancer risk: results of a randomized trial. *Am J Clin Nutr* 2007; 85:1586-1591.
- Holick MF. Vitamin D deficiency. *N Engl J Med* 2007 357:266-281.



Simple.
Streamlined.
Painless.

Prescription Drug Monitoring

Create an efficient, reliable
drug monitoring program.

Protect your patients and
manage your practice
with prescription drug
monitoring from Quest
Diagnostics. Learn more at:

866-MYQUEST
QuestDiagnostics.com

© 2012 Quest Diagnostics Incorporated.
All Rights reserved.

Bronchopulmonary Carcinoid Presenting as Dexamethasone Suppressible Cushing's Syndrome

Sarah Sofka, MD

West Virginia University

Timothy Jackson, MD

West Virginia University

Abstract

Introduction: Cushing's Syndrome is an endocrine condition with complex diagnostic pathways. Cortisol suppression from high dose dexamethasone usually points to the pituitary as the cause. We present the case of a patient with dexamethasone suppressible Cushing's Syndrome from a bronchopulmonary carcinoid tumor. The tumor was only able to be localized with bronchoscopy. Our objective is to inform other physicians of dexamethasone suppressible carcinoid tumors which may require bronchoscopy to localize.

Case Report: A 52-year-old female presented with signs and symptoms of Cushing's Syndrome. Cortisol and ACTH levels were significantly elevated. High dose dexamethasone suppressed cortisol production. However, no pituitary source was found. Standard imaging did not localize an ectopic source. The patient continued to have significant morbidity from the hypercortisolism. In order to avoid adrenalectomy, a bronchoscopy was empirically performed which revealed a bronchopulmonary carcinoid tumor.

Discussion: Bronchopulmonary carcinoid tumor should be in the differential diagnosis of dexamethasone suppressible Cushing's Syndrome if a pituitary source is not localized. Also, we suggest that bronchoscopy be added to the diagnostic algorithm when conventional imaging studies fail to reveal the ectopic source. This may result in cure of the carcinoid malignancy as well as the Cushing's Syndrome.

Introduction

In this report, we present a patient with dexamethasone suppressible Cushing's Syndrome (CS) from an ectopic tumor

producing ACTH. The tumor could not be visualized by standard radiological imaging. Due to the patient's poor condition, intolerance to steroidogenesis inhibitors, and in order to avoid empiric adrenalectomy, a bronchoscopy was preformed and identified a small submucosal bronchopulmonary carcinoid tumor (BPC). This mass was partially resected at the time of the procedure. This case report demonstrates the complexity of the diagnostic pathways of CS including the possibility that ectopic tumors causing CS may be suppressed by dexamethasone and the utility of bronchoscopy in localizing and possibly resecting BPC if imaging is negative. BPC account for less than 1% of causes of CS. Yet, BPC are the most common cause of ectopic ACTH production causing CS.¹ It has also been hypothesized that this subtype of carcinoids have a more unfavorable outcome.² Whether this is because of the associated CS or because of a more locally aggressive tumor is unclear.^{2,3}

Case Report

A 52-year-old female presented with a right adrenal hemorrhage. At that time, she was found to be hypokalemic and hypertensive with signs of CS including truncal obesity, striae, glucose intolerance, hirsutism, and depression. Because of the adrenal hemorrhage, right adrenalectomy was performed, and an adrenal mass was removed which was negative for neoplasm. Post-surgical twenty-four hour urine cortisol was 2700 µg/24hr (normal 10-100µg/24hr). Serum ACTH level was 911 pg/ml (normal

<46pg/ml) indicating ACTH dependent secretion of cortisol. Pituitary MRI was unremarkable.

Postoperatively, the patient continued to have hypokalemia and hyperglycemia. She required large amounts of potassium and potassium sparing diuretics to maintain normal serum levels. Insulin was needed to control her hyperglycemia. Multiple classes of anti-hypertensives were necessary to control her blood pressure. High dose dexamethasone test was performed to distinguish between a pituitary and ectopic source. This test did suppress cortisol production. The patient was referred for inferior petrosal sinus vein sampling, which surprisingly did not show a central to peripheral ACTH gradient. Since petrosal vein sampling was negative, another source of ACTH was sought.

CT scan of the chest, abdomen, and pelvis was negative aside from left adrenal hyperplasia. Octreotide scanning was also negative. Adrenalectomy was considered since no tumor could be localized for resection. With laboratory data supporting ectopic ACTH production, yet imaging being persistently negative, it was decided to perform bronchoscopy to explore for possible BPC. An endobronchial lesion was discovered at the basilar segmental bronchi of the left lower lobe (Figure 1). Partial removal of the mass was performed with the assistance of laser. Pathology of the 5mm specimen revealed well differentiated neuroendocrine cells with positive staining for synaptophysin, chromogranin, and ACTH. Therefore, the diagnosis of BPC secreting ACTH was made (Figure 2). The patient initially did

Figure 1.

Bronchoscopic view of endobronchial lesion seen at the takeoff of the basilar segmental bronchi of the left lower lobe.



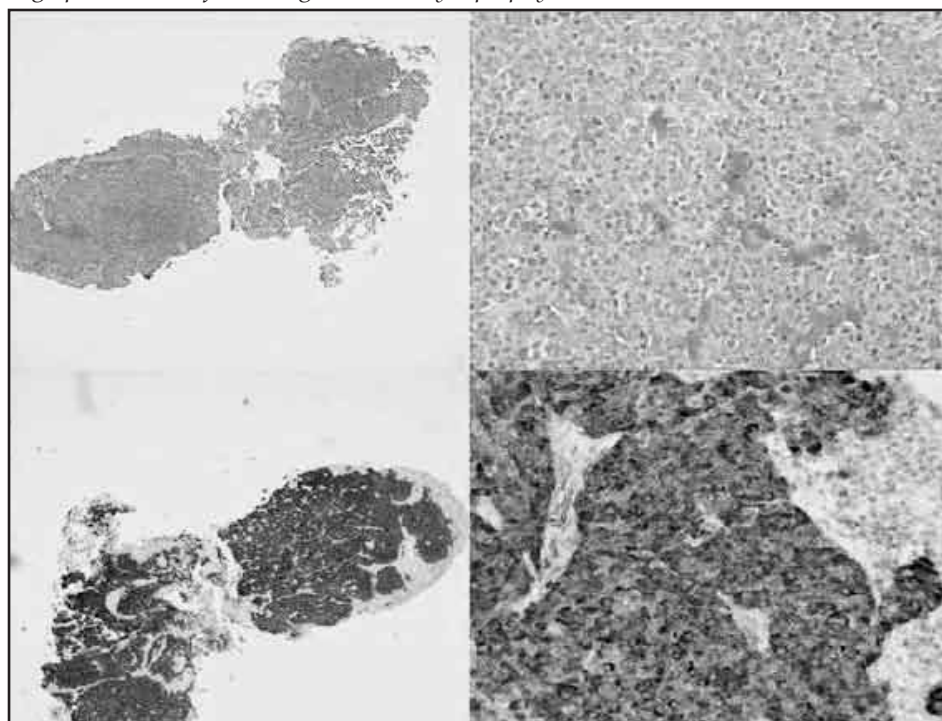
have some improvement in ACTH and cortisol levels immediately following the procedure. Hypokalemia also improved. However, over the course of the next 2-3 weeks ACTH and cortisol returned to pre-procedure levels and the patient once again suffered from the effects of hypercortisolism. Since the mass could only be partially resected with bronchoscopy, the residual tumor continued to produce ACTH. The patient developed pneumonia and significant atelectasis which made a lobectomy for total excision impossible. The patient died approximately 6 weeks after diagnosis from sepsis.

Discussion

CS was initially described by Harvey Cushing in 1932. In the initial description, Cushing described a patient with the classic signs and symptoms of glucocorticoid excess. Cushing's initially described case was shown to be secondary to overproduction of ACTH from a pituitary adenoma.⁴ Other causes of CS have been identified which are secondary to a primary adrenal process (adenoma or carcinoma) or secondary to ectopic ACTH production, most commonly associated with BPC of the lung.

The high dose dexamethasone test was developed to differentiate

Figure 2. (Upper left) Low power view of tumor resected from bronchus. (Upper right) High power view showing clusters of cells consistent with a carcinoid tumor. (Lower left) Low power view of chromogranin and synaptophysin stain. (Lower right) High power view of chromogranin and synaptophysin stain.



pituitary versus ectopic causes of CS. It consists of administering 8mg of dexamethasone between 2300 and 2400 hours with measurement of 0800 hour serum cortisol. If the morning cortisol is less than 5 mcg/dL, or if there is more than a 50% decrease in the baseline morning cortisol then cortisol production is considered suppressible.⁵ Pituitary Cushing's Disease is only somewhat resistant to feedback inhibition whereas ectopic tumors producing ACTH are usually completely resistant to feedback inhibition.⁶

The first diagnostic dilemma in this case was that the initial laboratory data suggested Cushing's Disease since the patient had an elevated ACTH and dexamethasone suppressibility. However, pituitary MRI was negative and inferior petrosal sampling did not show a central to peripheral ACTH gradient. These findings left us with an ectopic source of ACTH as the most likely diagnosis. Dexamethasone

suppressibility of BPC causing CS has been demonstrated previously in the literature.^{7,8} Ilias et al. reported that 6-14% of ectopic sources of CS demonstrated dexamethasone suppression in their case series. Most of these cases were BPC.⁸ This case serves to alert physicians that high dose dexamethasone may in fact suppress ACTH produced by BPC. In fact, with suppressibility, BPC should be added to the differential diagnosis of CS.

The second diagnostic dilemma with this case lies with the localization of this ectopic source of CS. The patient did not have any pulmonary symptoms at the time of presentation. Most BPC tumors arise in the proximal airways and cause symptoms such as cough, wheezing, or hemoptysis. However, a quarter of patients with tumors located more peripherally are completely asymptomatic.⁹ Such was the case with our patient. CT scan was performed of the chest, abdomen, and

pelvis which was negative for tumor. Octreotide scan was also performed looking for a carcinoid tumor. This was again negative. Adrenalectomy was seriously considered to control the extreme glucocorticoid excess in this patient. Since BPC is the most common cause of ectopic ACTH secretion,^{1,8,10} and since these tumors may show suppressibility in response to dexamethasone, a bronchoscopy was empirically done. This procedure found a small BPC which was partially resected. CT scanning should always be the next step when diagnostic testing points to an ectopic source of CS. Previous case series have shown that CT imaging localized the tumor in approximately 75-88% of cases of ectopic Cushing's.^{9,10} BPC that result in ectopic ACTH secretion are usually very small and average between 4-10mm.¹¹ In addition to their small size, CT may also be less sensitive when detecting centrally located BPC because they may be mistaken for vessels.¹² Ilias et al. showed that octreotide scanning demonstrated only a 49% sensitivity and did not detect any tumors not already seen on conventional imaging.⁸ CT and octreotide scanning are most useful when used in a complementary process. However, up to 19% of ectopic ACTH secreting tumors may never be identified with imaging.⁷ In this case, the only treatment option is bilateral adrenalectomy or steroidogenesis inhibitors. Therefore, localization is extremely important both to avoid this drastic procedure and also to achieve cure of the BPC through resection. Previous literature has also suggested that if the CS does not disappear after treatment, the presence of residual disease is likely present. If long term recurrence of CS occurs, there is likely relapse of the carcinoid tumor.¹³

Conclusion

This case report demonstrates that BPC may be suppressed by dexamethasone. We encourage

physicians to consider BPC in the differential when corticosteroid production is suppressed with high dose dexamethasone. We also suggest adding empiric bronchoscopy to the diagnostic algorithm when no pituitary source is identified and radiographic imaging is negative.

References

1. Limper A, Carpenter P, Scheithauer B, Staats B. The Cushing syndrome induced by bronchial carcinoid tumors. *Ann Intern Med.* 1992;117(3): 209-214.
2. Shragar JB, Wright CD, Wain JC, Torchiana DF, Grillo HC, Mathisen DJ. Bronchopulmonary carcinoid tumors associated with Cushing's syndrome: a more aggressive variant of typical carcinoid. *J Thorac Cardiovasc Surg.* 1997;114(3):367-375.
3. Deb SJ, Nicols FC, Allen MS, Deschamps C, Cassivi SD, Pairolero PC. Pulmonary carcinoid tumors with Cushing's syndrome: an aggressive variant or not? *Ann Thorac Surg.* 2005;79(4):1132-1136.
4. Cushing H. The basophil adenomas of the pituitary body and their clinical manifestations (pituitary basophilism). *Bull Johns Hopkins Hosp.* 1932;50:137-95.
5. Nieman L, Biller B, Findling J, et. al. The diagnosis of Cushing's Syndrome: an Endocrine Society Clinical Practice Guideline. *J Clin Endocrinol Metab.* 2008;93(5):1526-1540.
6. Orth D. Cushing's syndrome. *N Engl J Med.* 1995;332(22):791-803.
7. Loli P, Vignati F, Grossrubatscher E, et. al. Management of occult adrenocorticotropin-secreting bronchial carcinoids: limits of endocrine testing and imaging techniques. *J Clin Endocrinol Metab.* 2003; 88(3):1029-1035.
8. Ilias I, Torpy D, Pacak K, Mullen N, Wesley R, Nieman L. Cushing's syndrome due to ectopic corticotropin secretion: twenty year's experience at the National Institutes of Health. *J Clin Endocrinol Metab.* 2005;90(8): 4955-4962.
9. Gustafsson BI, Kidd M, Chan A, Malfertheiner MV, Modlin IM. Bronchopulmonary neuroendocrine tumors. *Cancer.* 2008;113(1):5-21.
10. Isidori A, Kaltsas G, Pozza C, et. al. The ectopic adrenocorticotropin syndrome: clinical features, diagnosis, management, and longterm follow-up. *J Clin Endocrinol Metab.* 2006;91(2):371-377.
11. Sahdev A, Reznick RH, Evanson J, Grossman A. Imaging in Cushing's Syndrome. *Araq bras endocrinol metab.* 2007;51(8): 1319-1328.
12. Vincent JM, Trainer PJ, Reznick RH, et. al. The radiological investigation of occult ectopic ACTH-dependent Cushing's syndrome. *Clin Radiol.* 1993;48(1): 11-17.
13. Scanagatta P, Montessoro E, Pergher S, et.al. Cushing's syndrome induced by bronchopulmonary carcinoid tumors: a review of 98 cases and our experience of two cases. *Chir Ital.* 2004;56(1):63-70.



We invite you to join our organization which consists of members who manage the daily business of healthcare providers.

Our objectives are to promote educational opportunities, professional knowledge, and to provide channels of communication to office managers in all areas of healthcare.

For more information visit our website
www.stateoma.com

or contact

Julie Williams, President @
jwilliams@wvmi.org

Stacie Spotloe, VP of Public Relations @
staciespotcmom@yahoo.com

We currently have 6 chapters in West Virginia including Beckley, Charleston, Clarksburg, Huntington, Morgantown, and Weirton.

The Brilliance of Blue[®]

Like vast, sparkling waters, brilliance can be discovered in West Virginia's largest, private insurer. Highmark Blue Cross Blue Shield West Virginia provides:

- *More physician and hospital choices*
- *Superior claims and customer service*
- *Support, 24-7, with Blues On Call and mybenefitshome.com*
- *Wellness programs for customers*

Contact your agent today, and find out why more West Virginians carry a Blue Cross Blue Shield card than any other insurance carrier in the state. You'll like what you see – the brilliance of blue.

1-888-644-BLUE

(1-888-644-2583)



Metastatic Melanoma to the Gastrointestinal Tract: Role of Surgery as Palliative Treatment

Santosh Shenoy, MD, FACS

*Clinical Assistant Professor, Department of Surgery,
Louis A. Johnson VA Medical Center.*

Riaz Cassim, MD, FACS

*Associate Professor, Department of Surgery,
Louis A. Johnson VA Medical Center*

Acknowledgements

This article was approved by our institutions ethics committee. We have no financial disclosures and no conflict of interest with any organization and have no sponsors for this journal article.

Abstract

Background: Malignant melanoma is an uncommon metastatic tumor found in the gastrointestinal tract but most commonly involves the small bowel. Less than 5% of patients with metastases to the gastrointestinal tract are diagnosed antemortem. Clinical presentation could be an acute abdominal emergency such as a bowel obstruction, intussusception, bleeding and perforation or chronic symptoms with weight loss, abdominal pain and anemia.

Methods: We report two unusual cases with acute gastrointestinal complications related to metastatic melanoma. Case 1 developed acute upper gastrointestinal bleeding and was diagnosed with gastric mass. Biopsy revealed metastatic melanoma. The patient died of his advanced disease. Case 2 with unknown primary melanoma presented with acute abdomen secondary to small bowel perforation. He underwent laparotomy and small bowel resection with palliative intent. The patient remains alive and free of symptoms at 4 year follow up.

Conclusions: Metastatic melanoma of the gastrointestinal tract should be suspected in any patient with history of cutaneous melanoma and new gastrointestinal symptoms. Surgical interventions for symptomatic patients with melanoma of the gastrointestinal

tract significantly relieve pain and improve quality of life and may confer a survival advantage.

Introduction

Melanomas are aggressive cutaneous neoplasms. It was estimated that 68,130 new cases of melanoma of the skin will be diagnosed in the United States in the year 2010. The 5 year survival rates of cutaneous melanoma have improved from 82% in 1977-79 to 92% in 1996-2004.¹ Given the improved survival rates and the overall increase in the life expectancy of the general population, the incidence of metastatic melanoma may continue to rise. The gastrointestinal tract (GI) is a common site for metastatic melanoma. We herein present two cases with metastatic melanoma to the gastrointestinal tract. The diagnostic evaluation, management and prognostic indicators are discussed along with review of literature.

Case I

An 86 year old white male with history of cutaneous melanoma of the anterior chest wall, who previously had excision with right axillary lymph node dissection. The final pathology revealed 1.7 cm thick melanoma with no lymph node metastases. Four years later he developed acute upper gastrointestinal bleeding and an upper endoscopy performed during that episode showed a large ulcerated gastric mass with melanosis (Figure 1). Multiple biopsies obtained were consistent with metastatic malignant melanoma, confirmed with HMB 45 and S 100 stain. Staging CT Scans showed widely disseminated

intrabdominal disease. The patient died of his advanced disease.

Case 2

A 58 year old male presented with acute onset of abdominal pain. Examination was consistent with peritonitis and a CT scan of the abdomen pelvis confirmed small bowel perforation with contrast extravasation. His recent history was significant for metastatic malignant melanoma diagnosed in the brain and right adrenal gland from an unknown primary. Exploratory laparotomy showed isolated melanoma metastases to the jejunum with perforation. Small bowel resection with associated mesentery was performed with a palliative intent (Figure 2). Final pathology confirmed metastatic melanoma. The patient made an uneventful recovery and went on to complete gamma knife procedure for his brain metastases. He continues to do well and remains free of abdominal symptoms at 4 year follow up.

Discussion

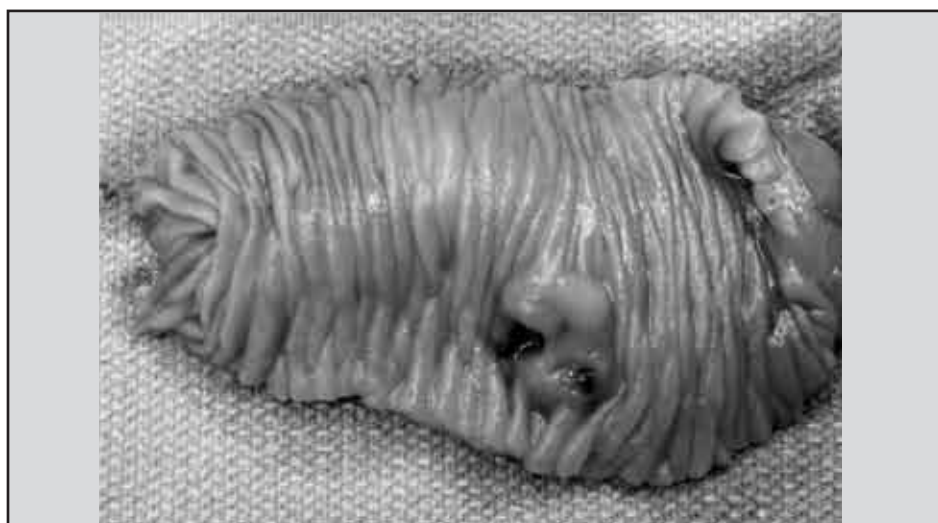
Malignant melanoma is an uncommon metastatic tumor found in the GI tract but most commonly involves the small bowel. Only 0.9% to 4.4 % patients with melanoma to the GI tract have the diagnosis made antemortem. In one large autopsy series melanoma commonly metastasized to the liver in (68%), small intestine (58%), colon (22%), stomach (20%), duodenum (12%), rectum (5%), esophagus (4%) and in anus (1%) of deceased patients.²⁻⁶ More than 50% of patients diagnosed with metastatic melanoma of the

Figure 1.
Large ulcerated gastric mass.



GI tract also harbor metastases in the other sites and organs.⁷⁻⁹ Approximately 5%- 10% of patients with stage 4 melanoma will do so from unknown primary site. In the majority of these patients the primary melanoma is never found and presumed to have undergone complete regression. The clinical symptoms and signs of metastatic melanoma could be acute or chronic.

Figure2.
Resected small bowel showing ulcerated melanotic nodule.



The predominant symptoms of presentation include abdominal pain 60%, small bowel obstruction 47%, nausea and vomiting 41%, GI bleeding and anemia 30% and abdominal mass 10%. With

gastric melanoma weight loss, abdominal pain and anemia are common presenting symptoms, with small bowel metastases, small bowel intussusception due to submucosal lesions is the most

Helping You Manage a Healthier Practice

Providing Professional Services to Physician Practices Since 1973



- Practice Analysis & Benchmarking
- Tax Planning & Preparation
- Core Accounting Services
- Practice Operation Improvement
- Regulatory Compliance

S
&
S

Suttle & Stalnaker PLLC

CERTIFIED PUBLIC ACCOUNTANTS

Charleston 800.788.3844
Parkersburg 304.485.6584
www.suttlecpas.com

Table 1. Large Case Series reporting resection of GI tract Metastatic Melanoma.

Author and year	Reference number	Number of patients	Median survival (months)	5 year survival (%)	30 day postoperative morbidity (%)	30 day Postoperative mortality (%)	Symptom relief (%)
Goodman et al 1981	10	16	4.5			19	
Klausner et al 1982	11	6	6			0	
Reintgen et al 1984	2	38			15	0	90
Klaase et al 1990	12	23	7.5	19		9	82
Branum et al 1990	13	78				0	92
Ihde et al 1990	17	32	6.2			3	
Ollila et al 1996	16	69		28	2	2	97
Krige et al 1996	21	17	10	30	11.8	17	82
Agrawal et al 1998	19	68	8.2	18	8.8	2.9	90
Gutman et al 2001	15	96	11		19	3	70
Sanki et al 2008	14	117	16.5	27	2.5	1.4	

common acute clinical presentation. The other presentation includes small bowel perforation and acute hemorrhage.^{2-4, 8, 10-12}

With less than 5% of diagnosis made antemortem, a high index of suspicion should exist in any patient with past history of melanoma and new complaints related to gastrointestinal tract, anemia, and malabsorption. Endoscopic procedures are useful in the diagnosis of esophageal, gastric and colonic lesions as they offer the advantage of a biopsy and also therapeutic intervention. Endoscopic tumor appearance is classified into ulcerated melanotic nodules, submucosal masses with ulcerations, and mass lesions with necrosis and melanosis (Figure1). The submucosal metastases appear as typical “bull’s eye” lesions on barium studies. Biopsy of a

mass provides the diagnosis and when the biopsies are inconclusive immunohistochemical stains which include HMB- 45 and S-100 are useful to confirm melanoma.^{4, 7-8, 13-14}

Small bowel follow through exams and contrast enhanced CT scans are other useful modalities, however the estimated sensitivity of these exams is 58% and 66% respectively. More recently PET CT scans have improved the ability to detect intrabdominal metastases from melanoma and reported sensitivity of 100%.^{5,8,14}

Surgery is an important tool in palliation of acute symptoms for metastatic GI tract melanoma. Bleeding, obstruction, and bowel perforation are best managed with surgery. The ability to correct the acute complications related to GI tract metastases can improve the quality of life and confer survival

advantage to these patients (Table1).^{2, 5,11,14,15} Median survival times have ranged from 4 months to 23 months in the operated group. Effective surgical palliation varies and 70% to 90% patients report remarkable symptomatic relief. Authors of larger series of published reports concur that surgical intervention can be performed with minimal morbidity and mortality ranging from 1.45% to 19%.^{2,10,12,14,16,17} The overall prognosis of stage 4 melanoma is poor with median survival of 6-8 months and 5 year survival less than 10%.^{7,8,16}

The survival data among different studies are difficult to compare due to different definitions, study groups and end points, however no adjuvant therapy has resulted in prolonging survival and quality of life in comparison to surgical intervention.¹⁶ The occurrence

of GI metastases has not shown any definitive correlation with the histological type, thickness, stage or the location of the primary lesion. There is also no correlation in the interval between the primary lesions and appearance of GI metastases.^{17,18} The important favorable prognostic factors for long term survival in these patients are complete resection of their GI tract metastases and the GI tract as the initial site of metastases. Patients who had complete resection with curative intent, when compared to palliative resection had a higher median survival. Patients whose disease was characterized by frequent recurrences, widespread metastases and abdominal disease that could not be completely resected fare poorly following resection.^{14,15,16,19} Agarwal et al. also reported a low serum LDH < 200 IU as a favorable prognostic factor. Elevated LDH may reflect either a greater tumor burden or simply aggressive tumor behavior. Our patient in case 1 had widely disseminated intrabdominal disease and serum LDH of 211 IU suggestive of poor prognosis. He died before any surgical intervention was planned. Our patient in case 2 with small bowel perforation also had disseminated disease to his brain and adrenal gland, with serum LDH of 225 IU. He was operated with a purely palliative intent to relieve peritonitis, pain and sepsis. He continues to do well and subsequently underwent gamma knife treatments and immunotherapy for his metastases and is symptom free at 4 year follow up. He had no evidence of primary cutaneous melanoma. It appears that patients presenting with melanoma from an unknown primary site have a better survival compared to patients with metastases from known primaries. This could be due to strong endogenous immune response against the primary melanoma.²⁰

Conclusion

Metastatic melanoma of the GI tract should be suspected in any patient with past history of melanoma and new onset of GI symptoms or anemia. Operative intervention not only relieves the acute complication but may also improve the quality of life and median survival. Palliative surgery should be offered even with their concurrent metastatic disease, if their performance status is acceptable and estimated survival is greater than 3 months.

References

- Jemal A, Siegel R, Xu J et al. Cancer Statistics. *CA Cancer J Clin* .2010.60: 277-300. Doi: 10.3322/caac.20073.
- Reintgen DS, Thompson W, Garbutt J, Seigler HF. Radiologic, endoscopic, and surgical considerations of melanoma metastatic to the gastrointestinal tract. *Surgery* .1984.95: 635-639.
- Capizzi PZ, Donohue JH .Metastatic melanoma of the gastrointestinal tract. *Compr Ther* . 1994. 20:20-23.
- Blecker D, Abraham S, Furth EE, Kochman ML .Melanoma in the gastrointestinal tract. *Am J Gastroenterol* .1999.94: 3427-3433.
- Bender GN, Maglinte DD, McLarney JH et al .Malignant Melanoma: Patterns of Metastasis to the Small Bowel, Reliability of Imaging Studies, and Clinical Relevance. *Am J Gastroenterol* . 2001. 96:2392-2400.
- Dasgupta TK, Brasfield RD .Metastatic melanoma of the gastrointestinal tract. *Arch Surg* . 1964. 88:969-973.
- Liang KV, Sanderson SO, Nowakowski GS et al .Metastatic malignant Melanoma of the Gastrointestinal Tract. *Mayo Clin Proc* . 2006. 81: 511-516.
- Schuster LM, Green R, Fraker D .Primary and metastatic diseases in malignant melanoma of the gastrointestinal tract. *Curr Opin Oncol* .2000.12: 181-185.
- Giuliano AE, Moseley S, Morton D .Clinical Aspects of Unknown Primary Melanoma. *Ann Surg*.1980. 191:98-104.
- Goodman PL, Karakousis CP. Symptomatic Gastrointestinal Metastases from Malignant Melanoma. *Cancer*. 1981. 48:1058-1059.
- Klausner JM, Skornick Y, Lelcuk S et al .Acute complications of metastatic melanoma to the gastrointestinal tract. *Br. J. Surg*. 1982. 69:195-196.
- Klaase JM, Kroon BB . Surgery for melanoma metastatic to the gastrointestinal tract. *Br. J. Surg*. 1990. 77:60-61.
- Branum GD, Seigler HF . Role of surgical intervention in the management of intestinal metastases from malignant melanoma. *Am J Surg*. 1991.162:428-431.
- Sanki A, Scolyer RA, Thompson JF . Surgery for melanoma metastases of the gastrointestinal tract; Indications and results. *EJSO* .2009. 35: 313-319.
- Gutman H, Hess KR, Kokotsakis JA et al . Surgery for abdominal metastases of cutaneous melanoma. *World J. Surg*. 2001. 25: 750-758.
- Ollila DW, Essner R, Wanek LA, Morton DL. Surgical resection for melanoma metastatic to the gastrointestinal tract. *Arch Surg*.1996. 131:975-980.
- Ihde JK, Coit DG .Melanoma metastatic to stomach, small bowel, or colon. *Am J Surg*.1991. 162:208-211.
- Geboes K, De Jaeger E, Rutgeerts P, Vantrappen G. Symptomatic gastrointestinal metastases from malignant melanoma. *J Clin Gastroenterol*.1988. 10:64-70.
- Agrawal S, Yao T.J, Coit DG .Surgery for melanoma metastatic to the gastrointestinal tract. *Ann Surg Oncol*.1999. 6:336-344.
- Lee CC, Faries MB, Wanek LA, Morton DL. Improved Survival for Stage 4 Melanoma from an unknown primary melanoma. *J Clin Oncol* . 2009.27: 3489-3495.
- Krige JE, Nel PN, Hudson DA. Surgical treatment of Metastatic Melanoma of the Small Bowel. *Am Surg*.1996; 62:658-63.



**JOIN
WESPAC Now!**

**West Virginia State
Medical Association's
Political Action Committee**

Visit www.wvsmma.com **or**
Call 304.925.0342, ext. 25

Best Practice Prescribing of Controlled Substances and Drug Diversion Training Conference a Great Success



On November 30, 2012 the collaborative efforts of the West Virginia State Medical Association, the West Virginia Board of Medicine, the West Virginia Board of Osteopathic Medicine and the West Virginia Osteopathic Medical Association resulted in a highly informative and well-attended conference developed for all prescribers. Over 300 allopathic and osteopathic physicians, dentists, nurses, physician assistants, nurse practitioners, and pharmacists attended.

David Potters, JD, Executive Director and General Counsel of the West Virginia Board of Pharmacy led the conference with his presentation of the “West Virginia Controlled Substance Monitoring Program: Database Overview and How to Access It”.

Allen Mock, MD, Deputy Chief Medical Examiner of the WV Office of the Chief Medical Examiner presented the statistics and analysis

of the past and present death toll of prescription drug abuse.

Attendees to the conference were inspired by Scott M. Fishman, MD, author of the book, *Responsible Opioid Prescribing: A Clinician’s Guide*. Dr. Fishman is Professor and Chief of the Division of Pain Medicine, Executive Vice Chair, Department of Anesthesiology and Pain Medicine at the University of California, Davis School of Medicine. He is a highly sought-after speaker and expert on prescription drug abuse and responsible opioid prescribing.

Copies of Dr. Fishman’s book were given to all attendees and is endorsed by the Federation of State Medical Boards and is approved for an additional 7.25 Category 1 CME credits, in addition to the 7.5 CME credits available to conference participants.

The impetus for the conference was the passage of legislation SB437, which requires all prescribers to receive continuing education in an effort to advance best practice prescribing of controlled substances and curb drug diversion in our state.

The educational objectives of the conference were:

- ◆ List the steps needed to meet the compliance requirements under West Virginia’s controlled substances laws and regulations.
- ◆ Follow the steps necessary to register, log-on and use West Virginia’s controlled substance monitoring program.
- ◆ Recognize the epidemiology of chronic pain and distinguish the proper use and misuse of opioids

through patient evaluations and risk assessment tools.

- ◆ Follow the proper protocol when using opioids in the treatment of chronic pain including an understanding of toxicities and drug interactions.

“We have over 300 health care providers attending. We have physicians, dentists, pharmacists, and nurses who have come together to learn about the best practices for prescribing pain medications. These are people who recognize that we have a problem in our state, who have come here to learn and they want to be part of the solution. We have a crisis in West Virginia and these providers and others say ‘we want to be a part of the solution.’”

- ◆ Discuss West Virginia statistics on prescription drug diversion and abuse.

- ◆ Identify drug seeking tactics and behaviors and understand the 'best practice' methods to work with patients suspected of inappropriate behavior.
- ◆ Follow case studies of an evidence-based protocol for starting patients on opioid analgesic therapy, including issues specific to safely initiating and titrating opioids including treatment objectives, monitoring, referral, informed consent, agreements, urine screens, pill counts, patient education, and medical record documentation.

A highlight of the conference were remarks by Governor Earl Ray Tomblin. The Governor took questions and comments regarding Senate Bill 437. "The discussions that we are having today are vital to the safety and the security of our families and our communities in West Virginia. Throughout the day, you will hear from outstanding experts – as you've been hearing this morning – those with knowledge who can help us end substance abuse in West Virginia."

Following the Governor's address was a luncheon program presented by Timothy Deer, MD, President and CEO of the Center for Pain Relief, Inc. Dr. Deer spoke on "The Pain Management Continuum: Using Interventions to Reduce the Need for Opioids and Other Controlled Substances".

Jimmy W. Adams, DO of Active Physical Medicine & Pain Center spoke on the topic of "Opioid Prescribing 2012: Turbulent Issues."

The conference wrapped up with a panel presentation of case studies by Michael O'Neil, PharmD, Rick Vaglianti, MD and Jimmy W. Adams, DO.

State Senator Evan Jenkins, who is also the Executive Director



of the West Virginia State Medical Association, says the conference focused on enhancing clinical expertise and fighting substance abuse and diversion.

"We have over 300 health care providers attending. We have physicians, dentists, pharmacists, and nurses who have come together to learn about the best practices for prescribing pain medications. These are people who recognize that we have a problem in our state, who have come here to learn and they want to be part of the solution. We have a crisis in West Virginia and these providers and others say 'we want to be a part of the solution.'"

The entire conference was filmed and will be available via webinar at a later date. Planning is already underway to host a similar conference in late spring 2013.

Thanks to the efforts of the sponsoring organizations and the

concerned prescribers, inroads are being made to build a culture of responsible prescribing and patient education and accountability.

The conference was jointly sponsored by CAMC Health Education and Research Institute as a continuing education event.

The conference was also made possible through a grant from the West Virginia Division of Justice & Community Services and the U.S. Bureau of Justice Assistance.

We would like to thank Robert Knittle, Executive Director of the West Virginia Board of Medicine, Diana Shepard, Executive Director of the West Virginia Board of Osteopathic Medicine, and Penny Fioravante, Executive Director of the West Virginia Osteopathic Medical Association for working closely with the West Virginia State Medical Association to coordinate and present this conference.



Telepsychiatry services expand to rural counties

Grant provides funds for additional clinics

West Virginia residents in several rural counties will now have access to WVU Healthcare's telepsychiatry services thanks to a \$1 million expansion grant.

Chestnut Ridge Center Telepsychiatry Director Susanne Choby, M.D., a forensic psychiatrist, has been awarded a competitive \$1 million grant from Health Resources and Services Administration, an agency of the U.S. Department of Health and Human Services.

Titled "West Virginia Rural Telepsychiatry: Expansion and Health Monitoring Project," the grant will provide funding over the next four years. Dr. Choby said it will allow for adult telepsychiatry patients to participate in an addiction treatment clinic.

During telepsychiatry appointments, providers see patients on a digital monitor with a secure audio and video connection. Mountaineer Doctor Television (MDTV), located in the Health Sciences Center, supports

the telepsychiatry services through its network. Patients sign a consent form in order to follow and remain within Health Information Portability and Accountability Act guidelines.

"A lot of the patients really prefer to see a psychiatrist using this technology," said Choby, who is also an assistant professor in the WVU School of Medicine Department of Behavioral Medicine and Psychiatry. "The patients pick it up quickly. In the electronic age, people nowadays are more comfortable interacting and spend more time using technology than they do with other human beings. Telepsychiatry is a great equalizer. Patients, I think, feel very comfortable with it."

The telepsychiatry program already exists in Mingo, Mercer, Jackson, Roane and Clay counties, and more than 4,000 patients have benefited from the services since July 2011.

"We'll be doing telepsychiatry in rural counties that do not have it, where people have to drive very far for the care," Choby added. "We'll be



Susanne Choby, M.D., conducts a telepsychiatry session in her office at WVU Healthcare's Chestnut Ridge Center

opening additional clinics in Logan, Randolph and McDowell counties, so we're expanding into three new areas."

A second aspect of the grant is to establish a metabolic monitoring database for people who take anti-psychotic medications. Choby explained that mental illness is associated with metabolic syndrome and adverse cardiac outcomes.

Kari Beth Law, M.D., and Elizabeth Six-Workman, R.N., are Choby's co-investigators on the grant.

Colenda to chair national medical school group

Liaison Committee on Medical Education sets accreditation standards



Dr. Colenda

Christopher C. Colenda, M.D., M.P.H., chancellor for health sciences at West Virginia University, has been selected to a one-year term as chair of the

Liaison Committee on Medical Education (LCME), the federally-recognized accrediting body for programs in the United States and Canada offering the M.D. degree.

Dr. Colenda was appointed to the LCME by the Association of

American Medical Colleges (AAMC). That group and the American Medical Association are the LCME's two institutional sponsors.

Medical schools are reviewed every eight years and must maintain LCME accreditation for their students to remain eligible for licensing in most states and in Canada. Schools must perform a rigorous self-study to compare their education program to LCME standards. An on-site visit from a team of faculty members from other accredited schools is followed by a detailed review by the LCME members.

"This is about continuous quality improvement and raising the standards

to ensure that all medical schools are providing the highest quality of medical education in the world," said Colenda. "On a personal level, of all the professional and volunteer work I've done, this is one of the most gratifying positions I've ever held in academic medicine."

Colenda is an accomplished geriatric health services and clinical investigator and has published more than 110 articles and book chapters. He joined WVU as Chancellor for Health Sciences in 2009. He was named an LCME member in 2007 while serving as dean of the College of Medicine of Texas A&M Health Science Center.

Nobel laureate visits Marshall's Joan C. Edwards School of Medicine



Günter Blobel,
M.D., Ph.D.

Günter Blobel, M.D., Ph.D., who received the 1999 Nobel Prize in Physiology or Medicine for his discovery that proteins have built-in signals that direct their movement in cells, visited

the Joan C. Edwards School of Medicine in November.

Marshall President Stephen J. Kopp presented Blobel with an honorary doctoral degree in science from the school.

For decades, Blobel, a cellular and molecular biologist, has studied the protein distribution system within cells. His studies showed that the movement and position of proteins within a cell depend on specific signals which direct them to proper cell destinations. Ultimately, the protein-signaling mechanisms discovered by Blobel were

discovered to be universal, found in yeast, plant, animal and human cells.

His work has shed light on diseases such as cystic fibrosis and kidney stones, which have been linked to errors in the signal and transport systems.

In awarding Blobel with an honorary degree, President Kopp praised the researcher for his life-long curiosity and commitment to the life sciences.

"Dr. Blobel is the epitome of a great research scientist and humanitarian, one who has dedicated his entire career to unlocking the mysteries of human disease and benefiting humankind," Kopp said. "He is among the most respected researchers in the world and it is with pleasure and great pride that we bestow upon him our highest honor, this honorary doctoral degree."

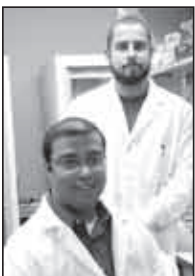
Dr. Joseph I. Shapiro, dean of the School of Medicine, said Blobel's visit served to both ignite passion

and encourage young researchers to pursue their scientific goals.

Blobel's research continues as he now works to understand the signals between a cell's nucleus and cytoplasm. Experts say the keys to unlocking these type communications will eventually help explain how diseases like cancer occur.

Blobel received his M.D. from the University of Tübingen in 1960 and his Ph.D. in 1967 from the University of Wisconsin, Madison, where he worked with Van R. Potter in the McArdle Laboratory for Cancer Research. He did postdoctoral work at The Rockefeller University and has been at the university since. Blobel was named the John D. Rockefeller Jr. Professor in 1992 and also serves as an investigator at the Howard Hughes Medical Institute.

Biomedical sciences doctoral students take top awards at regional conference



Standing: Johannes Fahrman.
Seated: Rounak Nande

Two biomedical sciences doctoral students from Marshall University's Joan C. Edwards School of Medicine captured first place in both categories of a research competition in conjunction with the first

Appalachian Regional Cell Conference.

They were among more than 40 graduate students and post-doctoral fellows from Marshall, West Virginia University, University of Kentucky and Ohio University

competing at the conference, which was held Oct. 12 at the Robert C. Byrd Health Sciences Center at Charleston Area Medical Center.

Marshall biomedical sciences Ph.D. candidate Johannes Fahrman received first place in the oral presentation category of the competition for a presentation about his research to explore the effects of omega-3 fatty acids in late stage chronic lymphocytic leukemia.

Rounak Nande, who is also a doctoral student in the university's biomedical sciences program, was awarded first place in the poster category for a poster describing his project to help develop a delivery system for targeted

gene therapy to improve the treatment of prostate cancer.

Two additional Marshall graduate students, Kristeena Ray and Sarah Mathis, were selected as winners in their categories of the poster competition - Ray for a poster showcasing her research into the role of epigenetics in endometriosis-associated pain and Mathis for a poster describing her work to help develop a test that could make possible individualized chemotherapy treatments.

The conference was organized and hosted by the four institutions with the goal of expanding the field of cell biology research and fostering interactions among scientists at the universities in the Ohio Valley/mid-Appalachian region.



OMM Clinic offers treatment to patients while teaching students techniques

Each year, second-year students at the West Virginia School of Osteopathic Medicine (WVSOM) are able to hone their skills in osteopathic medicine by offering treatment techniques to residents in the community.

The Student Osteopathic Manipulative Medicine (OMM) Clinic provides the medical students with hands-on experience with patients and the opportunity to incorporate techniques they have learned in Osteopathic Principles and Practice classes and labs throughout the year.

The clinic is open each Wednesday afternoon beginning Jan. 16 and ending March 27.

"The Student OMM Clinic is not only valuable for our medical students but for the residents serving as patients as well," said Dr. Deborah Schmidt, the clinic's faculty coordinator. "The students are able to evaluate patients and implement

osteopathic techniques while the patients receive valuable treatments for any number of problems."

Students are under the supervision of local osteopathic physicians during the clinic. Schmidt said about 13 physicians will oversee the 200 second-year students taking part in the clinic. First-year students will also be participating in at least one clinic visit shadowing the second-year students.

Once again, in order to accommodate a larger patient base, there will be two separate five-week block sessions. This will allow more patients to be seen throughout the 10-week course.

For some patients, the clinic is a way to help alleviate agonizing ailments. For others it's a chance to help students learn.

"The treatment by medical students has produced results more satisfactory than other treatments

I've received over the past 20 years," said patient Donald Ivasevich. "The staff's knowledge and willingness to explain the process was phenomenal."

Patient Linda Holliday said she had a wonderful clinic experience.

"I must say I was a bit skeptical but I was greatly helped," she said. "The students were very professional and a joy to be with. I will continue to use this procedure."

Community members interested in participating in the free clinic will need a written referral from their physician, physician's assistant or nurse practitioner. Schmidt said students need the opportunity to see patients with a variety of ages and health conditions. Patients that cannot participate in the clinic include those with active workers' compensation claims or litigation cases, or those who require documentation for legal cases.

WVSOM granted candidacy status for HLC accreditation

The Higher Learning Commission (HLC) of the North Central Association of Colleges and Schools granted WVSOM the status of candidacy for accreditation. Although HLC accreditation is not required of the osteopathic medical school, administrators said securing the voluntary accreditation is part of the school's strategic plan in fulfilling its mission of educating lifelong learners.

"It's important for people to know that we remain fully accredited by the Commission on Osteopathic College Accreditation of the American Osteopathic Association," said Jim Nemitz, Ph.D., WVSOM's vice president of administration and external relations. "The HLC accreditation is another gold standard that we want to attain."

Notification of the candidacy status comes three years after WVSOM's Board of Governors decided to seek accreditation from HLC. The review involves a rigorous self-assessment process, a site visit by a team of distinguished educators and review of the site visit report by the HLC.

Although the candidacy term is typically four years, the institution may file for early initial accreditation after two years. School administrators will continue to work with HLC staff to ensure the school is on track to meet this goal.

Nemitz said that although the past couple years to obtain initial candidacy status have required hard work from all members of the campus community, having full accreditation from HLC will be a tremendous attribute for the institution.

"We are pleased to be affiliated with the HLC as a candidate for accreditation, and we look forward to working with the HLC to attain full accreditation in the future," he said.

Helen Baker, the WVSOM professor coordinating the self-study process, said that she is delighted by participation from all areas of the college community. "Our faculty, staff, students, alumni and community members all pulled together in helping WVSOM achieve candidacy," she said. "We just need to keep up the good work."

The Higher Learning Commission is the nation's largest association overseeing higher education and accredits more than 1,000 colleges and universities in 19 states, including West Virginia.

Infant Mortality in West Virginia

In 2009, a total of 165 West Virginia infants died yielding an infant mortality rate of 7.76 per 1,000 live births (WV Health Statistics Center, 2012). This rate is significantly higher than the U.S. infant mortality rate of 6.39 per 1,000 live births. The infant mortality rate in West Virginia has been relatively stable over the past 12 years, declining only 0.34% per year. The leading cause of death among West Virginia infants over the past couple of years has been SIDS/SUID followed by birth defects. For the combined years of 2005-2009, McDowell County had the highest infant mortality rate and was the only county to be significantly higher than the overall WV infant mortality rate. Further analysis has also shown that infant mortality in the state is highest among African American infants and preterm infants. Additionally, WV infant mortality is highest among infants born to mothers with a high school education or less, unmarried

mothers, those that smoked or drank during pregnancy, and those who did not seek prenatal care.

The Office of Maternal, Child and Family Health has in place many activities that address the issue of infant mortality. The recently expanded Maternal Mortality Review Team, renamed the Infant and Maternal Mortality Review Team during the 2011 legislative session, now includes the review of all infant deaths along with maternal deaths in the state. The Universal Maternal Risk Screening tool, implemented in January 2011, for all pregnant women on their first prenatal visit allows for detection and intervention of possible risk factors influencing the pregnancy and early infancy outcomes. SIDS/SUID education promoting safe sleep, avoiding smoke, alcohol and drug exposure, and other modifiable risk behaviors which have an effect on infant morbidity and mortality are presented across the state at various

health fairs, baby showers and other gatherings in which maternal and child health is the focus. The Office of Maternal, Child and Family Health will continue to promote current and relevant educational material statewide to all involved in the care of West Virginia's newborns and infants in an effort to reduce infant mortality in the state.

Melissa Baker, M.A.
OMCFH Epidemiologist
Office of Maternal, Child and
Family Health
Bureau for Public Health
Melissa.a.baker@wv.gov
Phone: (304) 356-4438

Birgit A. Shanholtzer, M.A.
BRFSS & Vital Registration
Epidemiologist
Health Statistics Center
Bureau for Public Health
Birgit.a.shanholtzer@wv.gov
Phone: (304) 356-4172

For more information, go to wvsma.org



CALL FOR PAPERS – 2013

Theme: Rural Healthcare Disparities: Challenges & Solutions

**ADVERTISING OPPORTUNITIES
ARE AVAILABLE.**

For a copy of our media kit
go to www.wvsma.org

DEADLINES:

Manuscript submission:	February 1, 2013
Reviews returned by:	April 1, 2013
Resubmissions:	May 1, 2013
Printing:	July/August 2013 issue



Congratulations 2012 Certified Medical Coder Class!

by Barbara Good, CMC, CMOM
Physician Practice Advocate, WVSMA

The WVSMA's second Certified Medical Coder (CMC) class was held during October and November. The class, taught by Practice Management Institute instructor Audrey Coaxium from Houston, TX, consisted of office managers, nurses, coders and billers from West Virginia and North Carolina.

Congratulations to the 2012 Certified Medical Coder Class!

Lesa Adkins, CMOM, South Charleston, West Virginia
Angela Asbury, Beckley, West Virginia
Evelyn Bailey, Charleston, West Virginia
Shauna Bower, Madison, West Virginia,
Jenny Bowling, CMOM, South Charleston, West Virginia
Denise Carson, Weston, West Virginia
Jessica, Coriell, Huntington, West Virginia
Tammy Crosthwaite, South Charleston, West Virginia
Tammy Davis, Beckley, West Virginia
Amy Floyd, South Charleston, West Virginia

Jessi Spradlin, South Charleston, West Virginia
Ashley Hush, Huntington, West Virginia
Heather Kirk, South Charleston, West Virginia
Roxanne Loughery, CMOM, Morgantown, West Virginia
Misty Nelson, CMCO, Spindale, North Carolina
Debbie O'Neil, CMOM, Ripley, West Virginia
Sherri Parks, Weston, West Virginia
Dawn Saurborn, Bridgeport, West Virginia
Leslie Taylor, Charleston, West Virginia



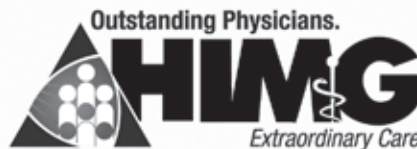
Dr. Myron Lewis
Family Practice

When you're in the office, do you want to practice **medicine or management?**

If your answer is medicine, consider joining the HIMG team. At HIMG, we are focused on delivering outstanding care. That commitment holds true for our patients and our team. Our administrative team and health care support professionals are dedicated to their responsibilities, allowing you to focus on the delivery of medical care.

Headquartered in Huntington, West Virginia, HIMG is the largest, privately-held, multi-specialty group in the state. Our 150,000 square-foot facility and our business practices have been a model for many operations throughout the nation.

We are currently recruiting physicians and mid-level providers in many areas and encourage you to contact us for a confidential review of the opportunities available.



5170 U.S. Route 60 East
Huntington, WV 25705
himgwv.com
(304) 528-4657

Obituaries



The WVSMA remembers our esteemed colleagues...

Milton Ralph Barrett II, MD

Milton Ralph Barrett II, MD, 59, of Lewisburg, WV, died Saturday, May 12, 2012. He was born January 9, 1953 in Pine Bluff, AR. Milton graduated from Mississippi College in 1975 with degrees in chemistry and philosophy. He received his medical degree from the University of Arkansas, Little Rock, and completed fellowship training in Diagnostic Radiology at the University of Tennessee Center for the Health Sciences, Memphis. Milton remained in academic medicine at UTCHS until 1990, when he joined Diagnostic Imaging in Memphis, where he was a partner until 2006. Since then, he has served as staff Radiologist for The Greenbrier Clinic in White Sulphur Springs, WV. A dedicated and generous physician, Milton was also an avid runner and held black belts in karate and taekwondo. Whether working in the yard or walking on the beach, he loved being outdoors.

Milton was preceded in death by his brother, Mark Andrew Barrett. He is survived by his parents, Glenna and Milton R. Barrett, Sr. of Little Rock, his wife Dawn Baldwin Barrett, and their son, Jake.

In lieu of flowers, the family requests memorials be sent to the Amyloidosis Foundation, www.amyloidosis.org. Arrangements by Ruebel Funeral Home.

Online guestbook: www.ruebelfuneralhome.com.

Robert William Bess, Jr., MD

Robert William Bess, Jr., MD, 82, of Keyser, died Sunday, Sept. 30, 2012 at Potomac Valley Hospital, Keyser.

Born on May 15, 1930 in Keyser, he is the son of the late Robert W. Bess, Sr., MD and Margaret B. (Johnson) Bess. Also preceding him in death are his grandparents, Charles Lewis and Maggie Napier Bess and James Brownlee and Sylvia Linn Johnson; and a brother-in-law Robert Campbell.

Dr. Bess was a graduate of Mercersburg Academy, Mercersburg, Pa., Potomac State College, Keyser, West Virginia University, Morgantown, W.Va., the Medical College of Virginia, and served a rotating internship at Winchester Memorial Hospital.

Dr. Bess' certificates and appointments include; both Maryland and West Virginia Boards of Medicine, American Board of Family Practice, WVU School of Medicine Associate Professor of Family Medicine Visiting Clinician for 25 years, Preceptor of Rural Health Medicine and Nursing, an Industrial Physician for Westvaco for 20 years and FAA Medical Examiner for 42 years.

Dr. Bess is survived by his wife of 38 years, Constance "Connie"

C. (Poland) Bess of Keyser. Dr. Bess is survived by his children, Renna Thayer Bess of Swanton, and companion Robert Kimmel of Vienna, Va., Robert W. Bess III of Keyser, James B. Bess and companion Connie Moore of Burlington, Charles D. Bess, and wife Melissa of New Creek, Margaret L. Bess Roberts and husband Tom, New Martinsville, Allen J. Bess and companion Spencer Marie Holland of Myrtle Beach, S.C. Along with his grandchildren, he is also survived by his grandchildren, Amanda Grieu Whitmore and husband Joseph of Nicosia, Cyprus, Ariana S. Grieu of Baltimore, Ashley Nicole Knight of Harrogate, Tenn., James R. Bess and wife Tiffany of Morgantown, Jeremy S. Bess and companion Sonee Miller of Keyser, Zachary T. Bess-Lima of Lutz, Fla., Tyler A. Bess-Lima of Lutz, Halea D. Evans of Keyser, Rennick Bess of Keyser and Alexa V. Bess of Keyser. Dr. Bess is also survived by his first great-grandchild, Mia Grace Whitmore of Nicosia, Cyprus; his siblings, Margaret J. Bess Campbell of Virginia Beach, Va., Sylvia L. Bess Kaiser and husband Robert, DDS of Salem, Va., Rebecca L. Bess Sagers and husband Robert of Dublin, Va.; and a daughter-in-law Kathy R. Bess.

Memorial contributions may be directed to Potomac Valley Hospital Hospice, 100 Pin Oak Lane, Keyser.



Amy Tolliver, Government Relations Specialist, Leaves WVSMA to Become Director, WV Perinatal Partnership

Amy Tolliver, West Virginia State Medical Association (WVSMA) Government Relations Specialist for the past 13 years resigned her position December 31, 2012 to accept the Directorship for the Perinatal Partnership of West Virginia.

When asked which accomplishment she was the most proud of during her tenure at WVSMA, Tolliver said, "I would have a very hard time saying what I am most proud of, I can say though that I was honored to be part of history in the making as the lobbyist for the WVSMA during the medical liability reform battle. I know that effort by hundreds if not thousands of people around the state made a significant impact on the availability of quality medical care in our state." "Other efforts that come to mind that I am proud to have played a role in include the repeal of the provider tax and the creation of the WV Medical Professionals Health Program. I know those efforts have truly made a difference to physician practices. Some of the most personally gratifying efforts that I have been

“ I was honored to be part of history in the making as the lobbyist for the WVSMA during the medical liability reform battle. I know that effort by hundreds if not thousands of people around the state made a significant impact on the availability of quality medical care in our state. ”

given the opportunity to work on as a representative of the WVSMA include the ATV safety initiatives, expanding newborn screening testing, increasing the tobacco tax and updating HIV testing laws."

Evan Jenkins, Executive Director of WVSMA had this to say, "Amy has been instrumental in the many advocacy accomplishments of the WVSMA over the past decade. From the enactment of nationally recognized medical professional liability reform legislation to repeal of the onerous provider tax, Amy

has successfully championed countless critical issues in an ongoing effort to preserve and enhance the doctor-patient relationship. She built a high degree of respect and appreciation with our staff and physician leadership and is an acknowledged health policy expert at the Statehouse. Amy's positive impact will be felt for many years, and she will be sorely missed by the WVSMA. We wish her the very best as she begins a new chapter in her accomplished professional career."

Hoyt J. Burdick, MD, WVSMA President 2012-2013 has worked with Amy for 10 years through his various leadership positions at WVSMA. "Amy Tolliver is an astute and perseverant lobbyist. Her experience in state and federal health policy development, including legislative and regulatory policy have been essential in effecting improved healthcare delivery and tort reform. Her passion for improving the quality of medical care in West Virginia will be a tremendous asset in her new role as Director of the Perinatal Partnership."



2012 WESPAC Contributors

The WVSMA would like to thank the following physicians, residents, medical students and Alliance members for their contributions to WESPAC. These contributions were received as of December 13, 2012:

Chairman's Club (\$1000)

David W. Avery, MD
Hoyt J. Burdick, MD
M. Barry Loudon Jr., MD
Douglas E. McKinney, MD
Friday G. Simpson, MD
Phillip R. Stevens, MD
Charles F. Whitaker III, MD

Extra Miler (\$500)

Joseph P. Assaley, MD
Marsha L. Bailey, MD
MaryAnn Nicolas Cater, DO
Sonia Chambers
James P. Clark II, MD
James L. Comerchi, MD
Generoso D. Duremdes, MD
Ahmed D. Faheem, MD
Beth Hammers
Albert V. Jellen, MD
Michael A. Kelly, MD
Charles McKown Jr., MD
Kenneth C. Nanners, MD
Albert J. Paine, Sr., MD
Dev R. Rellan, MD
Joseph B. Selby, MD
Daniel D. Snaveley, MD
Michael A. Stewart, MD
E. Lee Taylor, MD
B. Joseph Touma, MD

Joseph W. Werthammer, MD
Shirley Whitaker

Dollar-A-Day (\$365)

Edward F. Arnett, MD
Gina R. Busch, MD
Samuel R. Davis, MD
John A. Draper Jr., MD
William L. Harris, MD
David Elwood Hess, MD
John D. Holloway, MD
Theodore A. Jackson, MD
Carl W. Liebig, MD
Sushil K. Mehrotra, MD
Stephen R. Powell, MD
Bradley J. Richardson, MD
L. Blair Thrush, MD
John A. Wade Jr, MD
R. Austin Wallace, MD
Mark D. White, MD

Campaigner Plus (> \$100)

Bryan S. Apple, MD
Richard C. Rashid, MD
Lynn Comerchi

Campaigner (\$100)

John A. Adeniyi, MD
Derek H. Andreini, MD
Michael M. Boustany, MD
Adam J. Breinig, DO

James M. Carrier, MD
Patsy P. Cipoletti, MD
David T. Cramer, MD
Ruperto D. Dumapit Jr., MD
James D. Felsen, MD
Richard M. Fulks, MD
Phillip Bradley Hall, MD
Geraldine M. Jacobson, MD
Robert E. Johnstone, MD
Joby Joseph, MD
Muthusami Kuppasami, MD
Nancy N. Lohuis, MD
Tony Majestro, MD
Nimish K. Mehta, MD
Stephen K. Milroy, MD
Kamalesh Patel, MD
Frank A. Scattaregia, MD
Wayne Spiggle, MD
Michael L. Stitely, MD
Sadtha Surattanont, MD
Sasidharan Taravath, MD
Ophas Vongxaiburana, MD
Sherri A. Young, DO

Resident/Student (\$20)

Richard W. Eller, MD
Sarah Wade

Donor

Lisa M. Costello, MD

2013 WESPAC Contributors

Extra Miler (\$500)

Hoyt J. Burdick, MD
Michael A. Kelly, MD

Dollar-A-Day (\$365)

Samuel R. Davis, MD
Sushil K. Mehrotra, MD
Harvey D. Reisenweber, MD
John A. Wade Jr., MD
Mark D. White, MD

Campaigner Plus (> \$100)

Richard C. Rashid, MD

Campaigner (\$100)

Constantino Y. Amores, MD
Derek H. Andreini, MD
Adam J. Breinig, DO
Phillip Bradley Hall, MD
John A. Mathias Jr., MD
Teodoro G. Medina, MD

Stephen K. Milroy, MD
Wayne Spiggle, MD
Ophas Vongxaiburana, MD
Sherri A. Young, DO

Donor

Babulal Pragani, MD

| New Members

Cabell County Medical Society

Jesse Freeden, FYMS

Monongalia County Medical Society

Lauren Glikes, FYMS

Margaret Moreland, FYMS

Lauren Gioia, FYMS

Meagan Schaeffner, FYMS

Leslie Matthews, FYMS

Arielle Stafford, FYMS

Benjamin Lasure, FYMS

Hanna Cox, FYMS

George Thieroff, FYMS

Vanessa Williams, FYMS

What the WVSMA's Insurance Agency Can Do For YOU!

by Steve Brown, Agency Manager



WEST VIRGINIA
MEDICAL INSURANCE AGENCY
"Meeting the insurance needs of physicians"

The West Virginia Medical Insurance Agency (the Agency) is often confused as being the West Virginia Mutual Insurance Company (the Mutual); we are not the same but have some commonalities.

The Mutual was formed out of Legislation that was endorsed and partially authored by the West Virginia State Medical Association (the Association), which is the sole owner of the Agency. On this basis the Agency represents and recommends the Mutual as the insurance carrier being the most viable to provide medical professional liability insurance protection to the doctors of West Virginia; the Agency's only clients are doctors.

The Agency is a one-stop-insurance-shop for doctors. The basic products and services of the Agency are described in the following:

Products

Medical Professional Liability Insurance

As indicated previously, the Agency recommends the Mutual to its clients; the Mutual writes the largest percentage of the Agency's business. The Mutual's focus is to provide superior claims handling and litigation defense, offer quality risk management programs to not only reduce the number of claims, but also provide

premium credits, and conservative underwriting which has allowed the Mutual to prosper (A- Excellent, A.M. Best rating), meet its obligations (pay off a \$24 million loan provided by the State of West Virginia to start the company) and offer a secure source of medical professional liability insurance coverage to West Virginia doctors. In addition, the Mutual has returned over \$10 million to its policyholders in the form of renewal credits.

The Agency also utilizes the services of the ProAssurance Company to provide coverage for those doctors who have historically maintained insurance with them and desire to continue to do so. In addition, the Agency provides the availability of a hard-to-place (high risk due to claims, Board of Medicine actions, difficult practice characteristics) market for doctors unable to obtain coverage through the standard market.

Workers' Compensation

In February 2008, the Agency entered into a relationship with The Hartford to provide workers' compensation insurance. Generally we have been able to broaden coverage at reduced prices from the previous monopolistic carrier (BrickStreet) which we can also access should our clients so desire. The satisfaction level of clients with our program through The Hartford has not been

in doubt. Our book of workers' compensation insurance business continues to grow as our utilization of The Hartford is focused on special products for medical practices.

Business Owner's Insurance

At the same time as our teaming up with The Hartford for workers' compensation insurance, the Agency also began to offer business owner's insurance through The Hartford. Business owner's insurance is a combination of insurance needed by medical practices including: property, general liability, crime, data processing, employee benefit liability, employment practices liability and others. Business interruption is a very essential component when evaluating the recent severe weather storms West Virginians have endured. Again, The Hartford specializes in specific coverages for medical practices, therefore they are a very viable option for our clients. We have seen competitive pricing, broadened and enhanced coverages from The Hartford, but we also offer other options in special need situations.

Employee Group Benefits

The Agency has partnered with John Snodgrass of Benefit Design Services in Huntington, due to the very specific expertise needed for



WEST VIRGINIA ACADEMY OF
FAMILY PHYSICIANS
 STRONG MEDICINE FOR WEST VIRGINIA

these coverages: health, dental, vision, disability, and life insurance. Furthermore, through this relationship, we can design benefit programs or just improve upon them, as client's needs are met. Representing numerous benefit companies, including BC/BS, CareLink, Assurant, Delta, UNUM, Dearborn National, and others gives us a wide range of choices to utilize or interconnect to provide quality group benefit programs.

Disability Insurance

In August 2011, the Agency entered into an agreement with Union Central (now Ameritas Life Insurance Corporation) to provide an individual disability insurance plan that features a 15% premium credit for members of the WVSMA. This feature has now been expanded to members of the West Virginia Academy of Family Physicians (WVAFP), members of the West Virginia Medical Group Managers Association (WVMGMA) and members of the West Virginia Health Care Office Managers Association (OMA).

Our disability plan features a distinct definition of disability and provides multiple enhancements needed by medical practitioners. Also we offer overhead expense coverage uniquely designed to prevent the loss of a practice due to the doctor's disability.

Services

Agent-of-Choice

Beginning in September 2012, the Agency became the agent-of-choice of the West Virginia Academy of Family Physicians (WVAFP).

Premium Financing

The Agency has always maintained independent premium financing options for its doctor clients choosing quality service, lower finance rates, and no-Agency service fee features.

Reduced Premiums

Striving to maintain quality insurance protection at the best possible price has been a goal of the Agency. The Agency has found numerous misclassified/ misrated doctors who have achieved refunds and/or lower premiums as a result of its findings. Historically, 40% of the Agency's first year clients see premium reductions.

Utilization of Premium Credits

With the bulk of its business being written by the Mutual and the Mutual utilization of premium credits, the Agency strives to make sure its Mutual clients achieve the maximum

available CARE/Risk Management premium credits. In 2011, 93.7% of the Agency's Mutual clients achieved 8% (out of 10%) or more in premium credits, due to the Agency's efficient system of maintaining records on credits needed and achieved.

Experience/Expertise

Steve Brown, agency manager, and Robin Saddoris, account manager, offer a wealth of experience to meet the needs of doctors throughout the State. While Steve Brown travels the State personalizing the Agency's business relationships; Robin staffs the office and handles the technical side of the transactions. Steve and Robin combined offer experience and expertise in the medical professional liability insurance arena that is readily available to meet the expectations of their clients.

For additional information on how the West Virginia Medical Insurance Agency can best assist you in achieving the quality insurance product you desire at affordable prices, contact Steve Brown, Agency Manager, to set up an appointment to discuss what we can do for you.

2013

Physician Practice Conference & Annual Business Meeting

FRIDAY, FEBRUARY 15 - SATURDAY, FEBRUARY 16
Charleston Marriott



Friday, February 15

&

Saturday, February 16

- **Practice Management Breakfast:** Legislative Leadership Panel – Health Care Policy Update in the 2013 Legislative Session
- **2013 Payor Updates** - Medicare, Commercial and Other Government Payors Detail Latest Changes
- **Compliance** - What Every Medical Practice Needs to Know: 90 Minutes with a Former Department of Justice Health Care Fraud Attorney
Robert W. Liles, JD, MBH, MHA

- **Risk Management Breakfast**
Hosted by the WV Mutual Insurance Company
Eligible for WV Mutual 2% Risk Management Credit!
- **WVSMA 2013 Annual Business Meeting**
 - » WVSMA House of Delegates
 - » 2013-2014 WVSMA Officer Elections
 - » WVSMA Policy Resolutions

Earn Up to 5.25 CME Credit Hours
CEU credits are available through the Practice Management Institute (PMI)



WANTED: Unwanted Rx for a Safe and Healthy West Virginia

The health project submitted to the Southern Medical Association Alliance by Rose Romero on behalf of the WVSMAA won two national awards: First Place for State Project on Medical Education; and the Eileen Martin Award for Best Overall Health Education Project. The honors and prize money were given during the combined luncheon of the SMA physicians and Alliance members at the SMA Annual Conference/Alliance Convention on November 17, 2012 at Opryland in Nashville, Tennessee.

The project explores ways and means to dispose properly of unused and unwanted medicines. Abuse of prescription drugs has led to so many drug-overdose deaths in West Virginia, drug-related crimes, accidental ingestions by children, senior citizens' abuse and not to underestimate, an unhealthy and unsafe environment and sewage system.

Our goal as an Alliance is to help fight this war against drugs and drug abuse. We began with the WVSMA Alliance Fall Board Meeting on October 28, 2011. Board members were made aware of the health issues concerning proper disposal of unwanted medicines.

A national consultant from the Drug Enforcement Agency (DEA), Dr. Michael O'Neil, was invited to speak about the "National Drug Take-Back Day". He explained about securing drop-off boxes for unwanted medicines where drugs could be collected in between Take-Back days.

The inventor of the "Element Medication Disposal System" or Element MDS, Mr. Chris Vaught, shared how the Element MDS

could be used to destroy properly unwanted medications. Medications are held in suspension forming a gel-like substance with MDS powder and water, making the medication undesirable. Element MDS is being used widely in hospices, watershed organizations, and community task forces.

Senator Evan Jenkins, shared with board members about the bills that were passed during the WV Legislative session.

Board Members at both meetings went back to their respective counties with information that they shared with their alliance members. County alliances outlined their own plan of action for their communities.

Armed with information learned at board meetings from the experts, the State Alliance took on a project that will promote public awareness on the issue of proper disposal of unwanted drugs.

A brochure on "Safe Disposal of Medicines" was designed and thousands distributed to various establishments in Raleigh County – hospitals, clinics, pharmacies, malls, banks, post offices, among others.

Another brochure, "Return Your Medicines", was designed and distributed to establishments in the Eastern Panhandle.

A similar poster was designed by the Ohio County Medical Alliance in collaboration with the Substance Abuse Coalition and the Wheeling Police Department. Two hundred posters have been distributed to highly frequented areas in Ohio County.

At the recently concluded Annual Convention of the WVSMAA, this August 24, 2012, the Sheriff of the

Greenbrier County was invited to speak about his drop-off box initiative in Greenbrier County. Sheriff Jim Childers installed in the Sheriff's office, a drop-off box for unwanted medicines. Sheriff Childers and his Deputy, Kirby Hanso emphasized that the drugs collected from this drop-off box on a monthly basis, weighed several pounds each time. His initiative was so successful that other counties now have their own drop-off boxes. Destruction of collected medicines was done in incinerators.

The Alliance has helped bring public awareness with the brochures and posters on safe disposal and return of medicines, which are visible in most establishments. These materials have helped citizens in Raleigh County, Eastern Panhandle, and Ohio County aware of what to do with their unwanted medicines and where to go for drop-off boxes.

Additionally, WV lawmakers have enacted legislation with regards to prescription of controlled substances in the management of chronic pain. The West Virginia Board of Medicine will now require physicians to have 3 hours of CME on drug diversion and pain management issues for each cycle of license renewal.

Citizens are becoming more aware of safe disposal of medicines, thanks to the DEA's drug take-back days, sheriffs' drop-off boxes, and lawmakers' and physicians' new regulations related to prevention of prescription drug abuse. We can now hope to see a safer and healthier West Virginia!

Rose Romero
WVSMAA President

Professional Directory

COMPOUNDING PHARMACY

LOOP PHARMACY & HOME MEDICAL

The Region's only PCAB Accredited Compounding Pharmacy serving the medical community for over 25 years. Hormone Replacement, Pain Management, Sterile Compounding, Pediatrics, Autism, Dermatology, and much more. Contact us today for more information.

1-800-696-3170

Email: amanda@looppharmacy.com

Web: www.LoopPharmacy.com

EMPLOYMENT

GENESIS PHYSICIAN SERVICES

Physician, Nurse Practitioner and Physician Assistant Opportunities

Please call Jane Green at

888-291-3510

E-mail: jane.halliwelgreen@genesishcc.com

IN HOME CARE

SARAH CARE OF BARBOURSVILLE

Adult Day Care Center

2 Courtyard Lane

Barboursville, WV 25504

304-736-3005

www.sarahcare.com/barboursville/

NEUROLOGY

ALVARO R. GUTIERREZ, MD

NEUROLOGY

Academic results with private practice convenience.
Headache Rescue Services/EMG/Consultations.
Self-referrals accepted.

2199 Cheat Road, Morgantown, WV 26508

304-594-3258

304-594-3498 Fax

OBSTETRICS/GYNECOLOGY

WOMEN'S HEALTH CARE OF MORGANTOWN

"Experienced, professional care that puts you first"

Diplomates of the American College
of Obstetrics and Gynecology

William Hamilton, MD
Louise Van Riper, MD
Gail Rock, CNM

Craig Herring, MD
Rhonda Conley, CNM
Shane Prettyman, MD

Courtney West, CNM/FNP

Complete OB/GYN care:

- Prenatal care and delivery with our MD's or Nurse Midwives
- Non-surgical solutions and advanced surgical care
- Well woman screenings for all ages
- Sneak peek 3D/4D ultrasound

1249 Suncrest Towne Centre, Morgantown, WV 26505

304-599-6353

www.whcofmorgantown.com

SCOTT A. NAEGELE, MD, PLLC

OB/GYN

DaVinci Robotic Surgery
Advanced Bladder Procedures
In-Office Sterilizations & Endo Ablations

SCOTT A. NAEGELE, MD, FACOG

830 Pennsylvania Avenue Suite 108
Charleston, WV 25302

304.344.8368 | 304.342.8938 FAX

www.drscottnaegele.com/sanaegele@aol.com

PAIN MANAGEMENT

THE CENTER FOR PAIN RELIEF, INC.

Multidisciplinary Interventional Pain Management

TIMOTHY DEER, MD

RICHARD BOWMAN, MD

CHRISTOPHER KIM, MD

MATTHEW RANSON, MD

St. Francis Hospital Location

400 Court Street, Suite 100, Charleston, WV 25301

304.347.6120

THE CENTER FOR PAIN RELIEF, INC.

Teays Valley Hospital Location

Doctors Park, 1400 Hospital Drive
Hurricane, WV 25526

304.757.5420

Physical Therapy and Rehabilitation Center,

Southridge Location

100 Peyton Way, Charleston WV, 25309

304.720.6747

www.centerforpainrelief.com

UROLOGY

GREENBRIER VALLEY UROLOGY ASSOCIATES, INC.

Adult and Pediatric Urology

Providing healthcare services in West Virginia and Virginia
at multiple locations for over 29 years

KYLE F. FORT, MD, DAVID F. MERIWETHER, MD,

THOMAS S. KOWALKOWSKI, MD, JOSEPH

MOUCHIZADEH, MD, AND JAMES CAULEY, MD

Certified by the American Board of Urology

Diplomates of the American College of Surgeons

119 Maplewood Avenue at Fairlea, Ronceverte, WV 24970-9737

304.647.5642 | 304.647.5644 FAX

www.greenbrierurology.com | info@greenbrierurology.com



WESPAC is the West Virginia State Medical Association's bipartisan political action committee. We work throughout the year with elected officials to make sure they understand the many facets of our healthcare system.

WESPAC's goal is to organize the physician community into a powerful voice for quality healthcare in the West Virginia Legislature. We seek to preserve the vital relationship between you and your patients by educating our legislators about issues important to our physicians.

WESPAC contributions provide critical support for our endorsed candidates. Your contribution can make the difference between a pro-physician/patient candidate winning or losing.

To make a contribution to WESPAC, please call (304) 925-0342, ext. 12 or online at www.wvsma.com/WESPAC.aspx

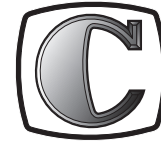
RENAL CONSULTANTS in

West Virginia is recruiting nephrologists for *Boone, Putnam and Kanawha* Counties.

Practice consists of busy CKD clinic, ESRD patients, home dialysis and post-transplant care. Applicant must be BC/BE and prepared to be busy immediately. Salary awarded proportionate to productivity.

J1 Visas welcomed.

E-mail resume to:
kcarper@gcdkidney.com



THE CHAPMAN PRINTING CO., INC.

A Division of Champion Industries, Inc.

THE COMPETITIVENESS OF TODAY'S BUSINESS WORLD DEMANDS TOP QUALITY PRINTING. THE BEST IN TECHNOLOGY, CRAFTSMANSHIP AND QUALITY IS YOURS WHEN YOU CHOOSE CHAPMAN PRINTING

CHARLESTON CHARLESTON, WV 3000 Washington St. West (304) 341-0676	HUNTINGTON HUNTINGTON, WV 2450-90 1st Avenue (304) 528-2791
---	---

PARKERSBURG PARKERSBURG, WV 405 Ann Street (304) 485-8596	LEXINGTON LEXINGTON, KY 890 Russell Cave Road (859) 252-2661
---	--

FAST & SIMPLE!

On-line Dues Payment Now Available!

wvsma.org

(scan code to go directly to online payment center)



Drug or Alcohol Problem? Mental Illness?

If you have a drug or alcohol problem, or are suffering from a mental illness you can get help by contacting the West Virginia Medical Professionals Health Program. Information about a practitioner's participation in the program is confidential. Practitioners entering the program as self-referrals without a complaint filed against them are not reported to their licensing board.

ALL CALLS ARE CONFIDENTIAL

West Virginia Medical Professionals Health Program
PO Box 40027, Charleston, WV 25364

(304) 414-0400
www.wvmphp.org

MEDICAL PRACTICE FOR SALE

Includes land, building and equipment.

**163 Greenbrier Street
Rupert, WV 25984**

Approximately 2500 square feet; completely remodeled office building, fully equipped w/ 6 exam rooms, 3 dr. offices, 2 nurses stations, staff break room, 2 waiting rooms, a lab and plenty of parking.

Price: \$175,000

For more information contact

Patricia Long
304-645-4043
amb2@suddenlinkmail.com

Ten basic tips for writing scientific papers

1. **Message.** What message is your paper delivering? Structure your thoughts accordingly
2. **Audience.** Who is the audience? Are you talking to generalists or to specialists? What do they need to know?
3. **Clarity.** Deliver the message clearly. Don't assume the reader knows what you are talking about. The "desktop" could be a desk top for some readers, not necessarily the computer screen that you are describing. When you communicate in writing, the reader doesn't have a way to ask for clarification.
4. **Spell correctly.** Spelling is a code with associated pronunciation and meaning in the mental dictionary. Editors will be turned off by incorrect spelling. If you write "Such strategy could seriously effect tourism trade," the incorrect spelling will "affect" editors adversely.
5. **Don't overuse adverbs.** The word "very" is seldom needed. "Suddenly, probably, hopefully," and other similar usage detracts from your writing.
6. **Stay in focus.** Each section should target one aspect of the premise stated by your paper.
7. **Do not state the obvious, and do not overstate.** Superlatives are seldom helpful.
8. **Use of language.** Do not use flowery prose, do not use informal style, and do not repeat the information presented in one section in another.
9. **Use words correctly.** "Imply" and "infer" do not have the same meaning.
10. **Keep it simple and keep it short.** Almost everything you write can be re-written in a shorter version. Do not use ten words if you can say the same thing in five.



We Appreciate Your Support!

Almond Postcards & Books	19
Ameritas Life Insurance Corp.	Inside Back Cover
Chapman Printing.....	15, 49
CMS.....	1
EN&T Associates.....	11
Eye & Ear Clinic Physicians, Inc.....	7
Flaherty Sensabaugh & Bonasso.....	17
Highmark West Virginia	29
HIMG	40
MacCorkle, Lavender & Sweeney	10
Medical Practice FOR SALE	49
Office Managers Association	28
Physician's Business Office.....	21
Quest Diagnostics	25
Renal Consultants	49
Suttle & Stalaker.....	31
West Virginia Medical Insurance Agency	52
West Virginia Mutual Insurance Company	2
West Virginia REDI.....	Back Cover
West Virginia University Faculty Position Announcement ..	14
West Virginia University HSC	Inside Front Cover
West Virginia Division of Rural Health & Recruitment	51

Advertising Policy

The WVMSMA reserves the right to deny advertising space to any individual, company, group or association whose products or services interfere with the mission, objectives, endorsement agreement(s) and/or any contractual obligations of the WVMSMA. The WVMSMA, in its sole discretion, retains the right to decline any submitted advertisement or to discontinue publishing any advertisement previously accepted. The *Journal* does not accept paid political advertisements.

The fact that an advertisement for a product, service, or company appears in the *Journal* is not a guarantee by the WVMSMA of the product, service or company or the claims made for the product in such advertising. The WVMSMA reserves the right to enter into endorsements, sponsorship and/or marketing agreements that may limit the placement of advertisements for certain products or services.

Subscription Rates:
 \$60 a year in the United States
 \$100 a year in foreign countries
 \$10 per single copy

POSTMASTER: Send address changes to the *West Virginia Medical Journal*, P.O. Box 4106, Charleston, WV 25364.
 Periodical postage paid at Charleston, WV.

USPS 676 740 ISSN 0043 - 3284

Claims for back issues should be made within six months after publication. Microfilm editions beginning with the 1972 volume are available from University Microfilms International, 300 N. Zeeb Rd., Ann Arbor, MI 48106.

©2013, West Virginia State Medical Association

Find Your Place in
the **HEART** of
West Virginia

Health Professions

PRACTICE OPPORTUNITIES

**FREE
PLACEMENT
SERVICES**

Over 300+

**urban and rural medical opportunities
available throughout West Virginia**

Who is being recruited?

- **Practicing and Resident Physicians
(All specialties)**
- **Dentists**
- **Physician Assistants**
- **Nurse Practitioners**
- **Nurse Midwives**

Programs:

LOAN REPAYMENT PROGRAMS

- **State Loan Repayment Program**
- **Recruitment and Retention Community Project**
- **National Health Service Corps Scholarship
and Loan Repayment**
- **J-1 Visa Waiver Program**

**Contact the West Virginia Division of Rural Health and Recruitment or visit our FREE online registration
and placement website Health Professions Recruitment Program
<http://www.wvochs.org/dr/healthprofessionsrecruitmentprogram.aspx>**

**Division of
Rural Health and Recruitment
350 Capitol Street, Room 515
Charleston, WV 25301
(304) 356-4252**



**or scan code below
to register.**



West Virginia Department of Health & Human Resources is an equal opportunity employer



WEST VIRGINIA
MEDICAL INSURANCE AGENCY
"Meeting the insurance needs of physicians"

The West Virginia Medical Insurance Agency

- is a wholly owned subsidiary of the West Virginia State Medical Association
- is a full-service, one-stop insurance agency serving physicians throughout WV
- proudly represents and recommends the West Virginia Mutual Insurance Company



As a Full-Service, One-Stop Agency, We Offer:

- ★ Group Health, Life, Vision, Dental & Disability Insurance
- ★ Disability Insurance 15% Premium Reduction for WVSMA Members
- ★ Disability Insurance 15% Premium Reduction for members of OMA of Health Care Providers, WVMGMA and WVAFP
- ★ Medical Professional Liability Insurance
- ★ Workers' Compensation Insurance
- ★ Business-owners (BOP) Insurance for medical practices
- ★ Individual Life Insurance



Call us for "valued assistance".

Telephone: 1-800-257-4747 or locally at 304-925-0342
Located at 4307 MacCorkle Ave., SE, Charleston, WV 25304

Steve Brown (ext. 22)
Robin Saddoris (ext. 17)

AMERITAS®

Life Insurance | Annuities | Disability Income Insurance

*We proudly offer products and services from
Ameritas Life Insurance Corp.*

West Virginia Medical Insurance Agency
4307 MacCorkle Avenue S.E.
Charleston, WV 25364
Office: 304-925-0342
www.wvsma.com

This information is provided by Ameritas Life Insurance Corp. and Ameritas Life Insurance Corp. of New York. Ameritas Life Insurance Corp. is not licensed in the state of New York. Each company is solely responsible for its own financial condition and contractual obligations. Ameritas is a registered service mark of Ameritas Holding Company. West Virginia Medical Insurance Agency is not an affiliate of Ameritas Life Insurance Corp. or Ameritas Life Insurance Corp. of New York.

WEST VIRGINIA RESPONDER EMERGENCY DEPLOYMENT INFORMATION SYSTEM REDI



West Virginia Responder Emergency Deployment Information

What is WV REDI?

West Virginia Responder Emergency Deployment Information system

- WV REDI is a web-based registration system developed to facilitate health and medical response through identification of West Virginians willing to serve in public health emergency and non-emergency situations

Who can register?

- Registration is open to West Virginia's health and medical professionals, and others who live or work in West Virginia

How can I help?

- You can help by being willing to assist during a health related emergency or event and by registering in WV REDI

What if I can't go when called?

- Please remember that "volunteer" truly means volunteer. You can choose, at any time, to decline any request that you receive for deployment

How do I register?

- To register go to www.wvredi.org and click on "register now"

Where do I get more information?

- For more information, call **304-558-6900 ext. 2009**

Register today
to be
prepared for
tomorrow!

Visit the
www.wvredi.org
homepage and click on
"register now."