West Virginia
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West Virginia State Medical Association
The Voice of Medicine in West Virginia

Reginald J. McClung
2013-2014
WVSMA President

WEST VIRGINIA State Medical Association

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3 Attend the 2nd Annual Conference, "Appalachian Addiction & Prescription Drug Abuse Conference," September 20 & 21, 2013. Visit wvsma.org for more details and registration information.

For more information, contact the West Virginia State Medical Association at 304-925-0342, ext. 12, or visit our website at wvsma.org.

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West Virginia Board of Osteopathic Medicine

West Virginia State Medical Association

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Accredited by:

CAMC Institute

This program meets the new CME requirement under West Virginia law.

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September 20-21, 2013

Appalachian Addiction & Prescription Drug Abuse Conference: A Paradigm for the Epidemic

Embassy Suites, Charleston, WV

September 26

Transitioning to ICD-10

2 Sessions (9 am or 1pm)

FEATURES

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

Medical Issues 2013-2014

by Reginald McClung
WVSMA President
2013-2014

I am truly honored to be your President for the coming year. There are many challenges ahead and it is imperative that we as physicians play an important role in analyzing the coming changes and help define what would be best for our patients now and in the future. The implementation of the Affordable Care Act has begun and we need to identify the positive and negative aspects as it unfolds so we can inform our legislators and representatives at the AMA how West Virginia physicians feel about the impact the law will have on their profession and practices. A simple concept would be to keep what is good and revise what is not. At this point the politics is no longer an issue. Over the coming year I hope to sort out fact from fiction and report it to you in this Journal. I invite you to e-mail your opinions to me at rjmcclungmd@gmail.com so that I can have an accurate reflection in representing your views. Please encourage your colleagues who may not be actively involved with the State Medical Association or feel that their opinions do not matter to contact me also. We need to engage all physicians in all specialties so that we can speak as one voice on the key issues. I believe the best approach for conveying our suggestions and recommendations is through the AMA on the national level.

I have read estimates that approximately 50,000 people a week will be signing up for Medicare over the next 20 years as a result of the aging baby boomers. The expansion of Medicaid is estimated to add more than 91,000 people in West Virginia. The medical home and team approach to patient care along with an increase in the use of allied health care professionals such as a nurse practitioners and physician's assistants will be utilized in some areas. Most primary care physicians have their own smaller version of medical homes where we have developed referral patterns to specialists who can see our patient's quickly and efficiently when a problem arises. I have been extremely fortunate to have the best specialists available to help me with any problem my patients encountered and I am forever grateful to these physicians. I am concerned that as more patients move into Medicare the lower reimbursements will not sustain private independent practices. Young physicians coming out of residency will have to be employed and that is already happening. When the majority of my patients moved into Medicare over an 8 year period my overhead skyrocketed and it was clear that my time had run out and I had to do something else. I was contacted by MDVIP, a Procter & Gamble Co., designed to provide individualized health care through a structured wellness program with a focus on prevention. VIP stands for Value in Prevention. After a thorough investigation I decided this was my best option because I could continue to practice medicine in the manner I was accustomed. The patients pay a relatively nominal fee for the 2 hour wellness examination and are very satisfied. This option for patients is becoming increasingly more popular. Older patients require more time to adequately address their problems and keep them healthy. They need to be seen quickly when they have an illness. Physician's should be

reimbursed more for taking care of an aging population instead of less.

We continue to have a problem with methamphetamine and pseudoephedrine. Despite the requirement to sign for drugs containing pseudoephedrine the abuse rate still remains high in certain West Virginia counties. I plan to talk with law enforcement and the US Attorney's office to see what physicians could do from their perspective that might help with the drug abuse problem in the state. I will report my findings to you in future Journal publications. I am certain that we will see legislation introduced during the next session that relates to all the topics I have mentioned. We have to keep an open mind on how to approach these subjects, putting politics aside. Sometimes a temporary measure must be accepted before a permanent fix can be determined.

Finally, I want to talk to our AMA representatives to make sure physicians are treated fairly when it comes to evaluation and management coding audits and especially after ICD- 10 is implemented.

Again, it is an honor to be your President for the coming year. I hope to serve you well.

Left: 2012-2013 WVSMA President, Dr. Hoyt Burdick passes the Presidential medal to 2013-2014 WVSMA President, Dr. Reginald McClung. Right: Dr. McClung congratulates Dr. Burdick for his successful 2012-2013 WVSMA presidency.

Congratulations Dr. McClung!

Above: Dr. McClung presents his wife, Teresa with a beautiful bouquet **of flowers. Left: 2013-** 2014 WVSMA President, Reginald McClung, MD and 2013-2014 AMA President, Ardis Hoven, MD. Right: Dr. and Mrs. Reginald McClung.

The 2013 Annual Meeting of the American Medical Association, Chicago, IL

by Constantino Y. Amores, MD

The West Virginia delegation of the 2013 Annual Meeting of the AMA was highly successful and included: 2012-2013 WVSMA President, Hoyt Burdick, MD; Joseph Selby, MD; Jim Felsen, MD and WVSMA Executive Director, Evan Jenkins. Eleven medical students from the Joan C. Edwards School of Medicine at Marshall University also attended this year's annual meeting.

The Organization of State Medical Association Presidents (OSMAP) discussed recent litigation in which the AMA partnered with specific states to reach successful outcomes. The group also received the report of the AMA Foundation concerning the scholarship program and grants for leadership training to the Kellogg School of Management at Northwestern University in Chicago. Focus on the disruptive and costly impact of the ICD-10 changeover for medical practices was also debated among OSMAP members.

Ardis Hoven, MD, this year's AMA president, discussed the AMA's efforts to work with Congress to head off the doctor shortage by enabling graduates of medical schools better access to residency positions.

Jeremy Lazarus, MD, outgoing AMA president spoke about the changes in the healthcare delivery system affecting doctors and patients and the U.S. Supreme Court ruling on the Affordable Healthcare Act.

James Madera, MD, AMA CEO shared information about AMA's health outcome initiatives, particularly the cerebrovascular diseases and type 2 diabetes programs; the accelerating changes in medical education to shape better care delivery and payment models for a more satisfying and sustainable practice environments.

Hoyt Burdick, MD attended the reference committee on Medical Practice. James Felsen, MD, the committee on Public Health and Legislation; Joe Selby, MD attended the committee on Medical Education, and the reference committee on Science and Technology. I attended the committee meeting on Constitution and Bylaws and the reference committee on AMA Finance and Governance.

Monday, June 17 started with an early special session by our Southeastern Delegation. Ronald Ackerman, MD spoke on the importance of community-physician ties as the key to controlling the nation's spiraling incidence of diabetes. He outlined the CDC's efforts to collaborate with the medical community to offer pre-diabetes treatment programs including emphasis on regular exercise, and healthy eating habits.

Meetings of special interest included: litigation, ethics, the Health Insurer Report Card, surgical homes, the industry-physician interaction and public transparency reporting.

The final day of the Annual Meeting, delegates elected the 2013-2014 AMA leadership. Robert Wah, MD, an OB/GYN specialist with a subspecialty in Reproductive Endocrinology was elected president. The House elected Maya Babu, MD, a neurosurgical fellow at the Mayo Clinic, and Gerald Harmon, MD, a family doctor from Pawleys Island, South Carolina to the Board of Directors. David Barbe, MD, from Missouri was re-elected to the Board.

Andy Gurman, MD, and Susan Bailey, MD were re-elected as Speaker and Vice Speaker, respectively.

Dr. Ardis Hoven's inaugural address was entitled, "The Future of U.S. Healthcare is in Our Hands." Dr. Hoven is an infectious disease specialist from Kentucky. She emphasized that the collective voices of America's physicians have the power to make a difference and urged unity in the profession. Dr. Hoven plans to focus her tenure on issues such as combating the epidemic of chronic disease, innovations in medical education to handle the unprecedented changes in healthcare law and its effect on the practice enviroment, medical liability reform, eliminating SGR and the present and worsening doctor shortage in the U.S.

As the AMA's 150 years' history shows, when we stand united, physicians have powerful leverage to influence the delivery of the nation's healthcare system.

The opportunities to network and hear the views of other physicians from around the country, those of third party payors, administrators, and other healthcare experts on the ever changing delivery of healthcare are immeasurable.

Medically assisted aid in dying?

Vermont is now the fourth state to permit mercy

EDITOR'S NOTE: *The* West Virginia Medical Journal *will occasionally print or reprint an Op-Ed piece with the purpose of starting a dialogue on a subject of interest to the medical community. This article first appeared in the Charleston Gazette, Op-Ed section, May 24, 2013. It is reprinted with permission of the author, Hoppy Kercheval. For additional reading on this topic, go to www.countercurrents.org to read the article* "How Doctors Die" *by Ken Murray and an article which appeared in the Wall Street Journal, June 13, 2013, entitled,* "For Belgium's Tormented Souls, Euthanasia-Made-Easy Beckons" *by Naftali Bendavid.*

A little over four years ago, my ailing father decided he was ready to, as he phrased it, "leave this vale of tears."

He was 87, and dying from chronic obstructive pulmonary disease.

A candid conversation with his doctor revealed he had six to 18 months to live, at best.

My father decided to stop any treatments designed to save or prolong his life and began preparing for the end.

He died a short time later and, except for the final hours, he was mentally sharp and completely aware of what was happening.

Our family was heartbroken, but we considered it a blessing that he passed at home, peacefully, with his dignity intact, knowing that he had been able to make important decisions about his fate.

Not every family is that fortunate. Dying is often an extended, painful event that exhausts families physically, emotionally and financially, to the point that death produces as much relief as sadness.

There is, however, an alternative, albeit a controversial one.

This week, Vermont became the fourth state - Oregon, Washington and Montana are the others - to allow doctors to prescribe lethal medication doses to terminally ill patients who have chosen to end their lives.

The legislation allows qualifying patients with an "incurable and irreversible disease" and less than six months to live to choose medically assisted aid in dying.

The law includes a series of safeguards, including consultation with two physicians and counseling on other options, including hospice and palliative care.

Kathryn Tucker, director of legal affairs for Compassion and Choices, a nonprofit organization that supports the law, says the legislation "affirms the soundness of aid in dying as a valid end-of-life option for terminally ill adults, provides clear protection to physicians who provide it, and leaves the regulation of the practice to professional practice standards."

Of course, many are concerned about what amounts to assisted suicide. Conservative Christians believe it's morally wrong and violates the sanctity of human life.

Others worry about a slippery slope whereby euthanasia becomes a little too convenient, as safeguards are relaxed and rules are bent.

And we're still haunted by the ghoulish image of the late Dr. Jack Kevorkian.

Yes, he got the country thinking about the difficult subject, but hauling around his homemade death machines in a beat-up VW van was more reminiscent of a back-alley abortion than a peaceful, solemn departure.

Legalizing a terminally ill patient's ability to choose death with dignity means, among other things, we won't need the Jack Kevorkians.

A majority of Americans are willing to accept the wishes of a dying patient, even if that wish is for an end of life.

A 2011 Harris Poll found that two-thirds of all adults (70 percent) believe "people who are terminally ill, in great pain and who have no chance of recovery, should have the right to choose to end their lives. This includes a majority, but a smaller percentage (62 percent) of people over 65."

We're told that life is about the choices we make.

Empowering terminally ill patients to make the most significant choice of their lives as death approaches is both respectful and compassionate.

Cancer Incidence in Elderly West Virginians

Alana G. Hudson, PhD, MPH
Div. of Cancer Epidemiology, Bureau for Public Health, WVDHHR, Charleston, WV; Dept. of Epidemiology, Graduate School of Public Health, University of Pittsburgh, Pittsburgh, PA

Kristen J. Mertz, MD, MPH
Dept. of Epidemiology, Graduate School of Public Health, University of Pittsburgh, Pittsburgh, PA

Steven J. Jubelirer, MD
WVU Charleston Division, Charleston, WV; David Lee Cancer Center, CAMC, Charleston, WV

John W. Wilson, PhD
Dept. of Biostatistics, Graduate School of Public Health, University of Pittsburgh, Pittsburgh, PA

Abstract

West Virginia has one of the oldest populations in the nation. Cancer is a common disease among the elderly. With the projected growth of the elderly population (defined as 65 years and older), cancer will become a major public health burden. This article provides a summary of cancer incidence in elderly West Virginians. Incidence data were obtained from the *West Virginia Cancer Registry*. Approximately 6,262 elderly persons are diagnosed with some form of reportable cancer in West Virginia each year. Among those aged 65 and older, the four leading primary cancer sites in the order of their relative frequency were lung and bronchus cancer (21.8%), prostate cancer (14.6%), colorectal cancer (12.7%), and female breast cancer (9.6%). In general, the burden of cancer was greater in elderly men than in elderly women. Knowledge of the epidemiology of cancer in the elderly can potentially help guide statewide cancer prevention and control efforts and be used for anticipating future health care needs in the state.

Introduction

West Virginia has one of the oldest populations in the nation.[1] According to the 2010 United States Census, West Virginia's elderly population (defined as age 65 years and older) represents about 16% of the state's population and the proportion of elderly persons is expected to increase in the coming years.[2] By 2030, it is projected that West Virginia's population age 65 and over will increase to almost 25% of the state's population.[1]

Cancer is a common disease in the elderly, with cancer incidence increasing with age for most cancer types. Age is the greatest risk factor for developing cancer, with current estimated lifetime risk of developing cancer a staggering one in two in men, and one in three for women.[3] The annual incidence of cancer in the elderly is greater than in any other age group, greatly exceeding the incidence in children and younger adults.

Compared to the United States as a whole, a higher proportion of Appalachian Region residents are greater than 65 years of age. This unique geographic region, which extends from southern New York to northern Mississippi, is characterized by poor health, high poverty rates and low educational attainment. The National Cancer Institute has long recognized the residents of Appalachia as a population with cancer health disparities.

West Virginia is unique in that it is the only state situated entirely in the Appalachian Region. In West Virginia residents, as is the case for residents of other Appalachian states, multiple cancer risk factors are prevalent. These risk factors include tobacco use, obesity, diabetes and physical inactivity.[4-7] Further, Appalachian residents, particularly those living in rural areas, have lower rates of cancer screening and less access to health services, thus resulting in later diagnoses and increased death rates resulting from cancer.[8,9]

This report describes cancer rates in elderly West Virginians. Data found in this report can potentially serve as a resource for statewide cancer prevention and control efforts and for estimating the influence the increase in the elderly population will have on cancer-related health care costs.

Methods

Data Source and Subjects

Cases used in these analyses were identified using the West Virginia Cancer Registry (WVCR), a population-based cancer registry that collects cancer incidence data on all West Virginia residents. Since 1993, West Virginia State law has mandated the formal collection and report of all newly diagnosed cancers in West Virginia to the WVCR. Data collected by the WVCR include demographics, incidence date, site and histology of the tumor, extent of disease, and first course of treatment. Since 1999, the WVCR has met the criteria necessary to earn the highest (Gold) level of certification of data quality awarded by the North American Association of Central Cancer Registries (NAACCR). Certification is based on completeness of case ascertainment (the registry must find at least 95% of the total number of cases that are estimated to have occurred), timeliness, completeness of information, and data quality.

Data were obtained on all invasive cancer cases diagnosed in West Virginia residents from 2000 to 2008, with two exceptions: (1) invasive basal and squamous cell carcinomas of the skin were excluded and (2) in situ bladder carcinoma tumors were included. Incidence data on invasive basal and squamous cell skin cancers are not collected by most cancer registries in the United States, including the WVCR. Bladder in situ carcinoma is included due to the difficulty in delineating between in situ and invasive bladder tumors.[10] Because of reporting delays, cases diagnosed after December 31, 2008, were not available for analysis. All-site incident cases included all invasive cancer and bladder in situ cases combined. SEER site coding categories, which are based on primary site of tumor and histology,

Figure 1. Percentage of All Cancer Cases ≥ 65 Years of Age by Primary Site, West Virginia, 2004-2008.

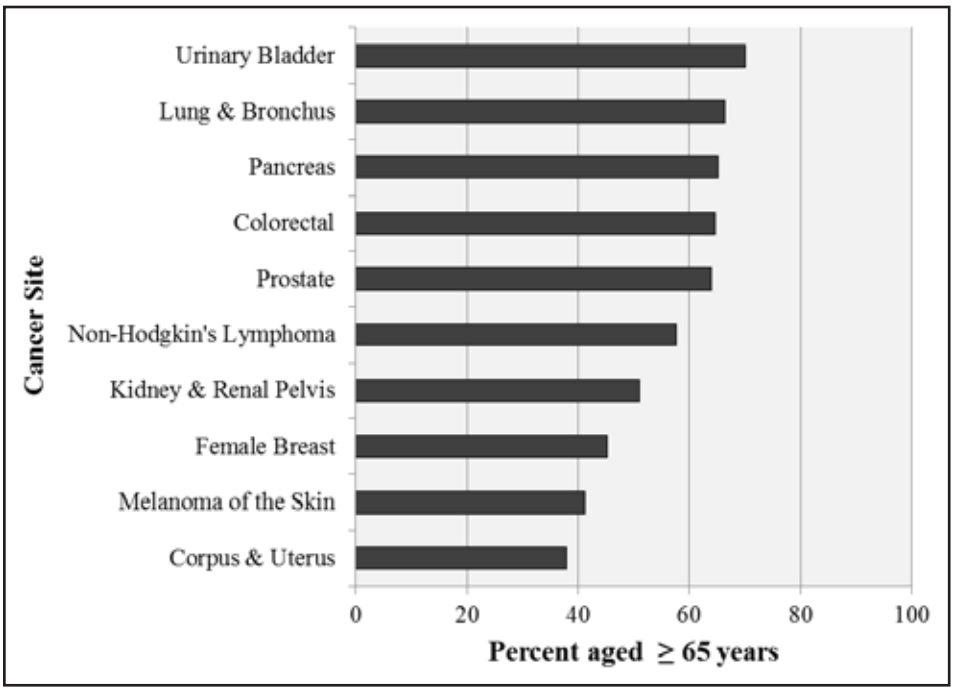


Table 1. Number (%) of incident cases for all cancers combined and major primary sites in West Virginia residents aged 65+ by gender, 2004-2008.

Cancer Site	Males		Females		Total	
	No.	%	No.	%	No.	%
All-Sites	17087	100	14224	100	31311	100
Lung & Bronchus	3797	22.2	3043	21.4	6840	21.8
Prostate	4581	26.8	---------	---------	4581	14.6
Colorectal	1948	11.4	2020	14.2	3968	12.7
Female Breast	---------	---------	3017	21.2	3017	9.6
Urinary Bladder	1337	7.8	513	3.6	1850	5.9
Non-Hodgkin's Lymphoma	637	3.7	656	4.6	1293	4.1
Melanoma of the Skin	504	2.9	307	2.2	811	2.6
Corpus & Uterus, NOS	---------	---------	640	4.5	640	2.0
Kidney & Renal Pelvis	529	3.1	397	2.8	926	3.0
Pancreas	378	2.2	403	2.8	781	2.5
All Other Sites	3376	19.8	3228	22.7	6604	21.1

were used to classify site-specific cancers. Considering the limited racial diversity in West Virginia, white and black were the only race-specific categories defined.

Stage of disease at diagnosis was classified as localized, regional, distant, or unknown using the Collaborative Stage (CS) Derived SEER Summary Stage 2000 variable.[11] SEER Summary Staging is the most basic way of categorizing how far a cancer has spread from its point of origin. This staging system is commonly used by cancer registries to facilitate cancer surveillance and research as it is easy to apply and stable over time.

Statistical Analysis

Frequencies for all cancer sites combined and site-specific cancers diagnosed between 2004 and 2008 were grouped by age (65-74, 75-84, 85+), sex, and race. Age-specific incidence rates were calculated by dividing the number of new cases diagnosed in a specific age group by the population in that age group for the same time period and expressed per 100,000 persons per year. Incidence rates were reported for all cancer sites combined and the four most common sites of cancer. Age-adjusted incidence rates were expressed as the number of new cases per 100,000 population per year and were age standardized by the direct method using the 2000 United States population. The denominators used were West Virginia population estimates obtained from the Census Bureau's 2000 census data and intercensal estimates. Rates for sex-specific cancers (e.g., female breast, prostate) were computed using sex-specific population counts for the denominator. Cancer frequencies, percentages and rates were calculated using the Rocky Mountain Cancer Data System (RMCDS) and SAS software.

Results

Between 2004 and 2008, the average annual number of incident cancer cases diagnosed in West Virginia was 11,034, among whom 6,262 (56.8%) were age 65 and older. During the same time period (2004-2008), the average annual incidence rate for all cancer sites combined among elderly persons was 2,203.8 per 100,000 persons (data not shown).

The percentage of cases occurring in elderly West Virginians in 2004-2008 by major primary cancer site is shown in Figure 1. Persons aged 65 and older accounted for the majority of cases of cancer of the urinary bladder (70.1%), lung and bronchus (66.4%), pancreas (65.2%), colorectal (64.8%), prostate (63.9%), non-Hodgkin's lymphoma (57.7%), and kidney and renal pelvis (51.0%). The number of invasive cancer cases by primary site and gender for West Virginians aged 65 and older is shown in Table 1. Four cancer sites (lung and bronchus, prostate, colorectal and female breast) accounted for almost 59%

Table 2. Age-specific cancer incidence rates (per 100,000) for all cancers combined and select primary sites by race and gender, West Virginia, 2004-2008.

	Age Group (years)			
Race, Gender & Cancer Site	**65-74**	**75-84**	**85+**	**Total (65+)**
White Males				
All-Sites	2621.8	3404.1	3055.3	2926.8
Prostate	787.8	790.9	648.1	775.9
Lung & Bronchus	591.6	773.2	585.7	652.5
Colorectal	270.7	424.5	385.5	333.4
Black Males				
All-Sites	3078.1	2921.6	2785.3	2988.6
Prostate	1167.6	1012.2	951.1	1087.5
Lung & Bronchus	712.7	598.1	407.6	636.4
Colorectal	318.4	460.1	339.7	370.5
White Females				
All-Sites	1614.5	1997.3	1747.9	1773.9
Female Breast	373.8	412.7	299.1	376.3
Lung & Bronchus	385.5	431.8	249.3	381.2
Colorectal	196.4	296.1	316.4	251.1
Black Females				
All-Sites	1314.9	1724.8	1396.2	1485.5
Female Breast	317.8	325.0	324.1	321.7
Lung & Bronchus	306.8	300.0	174.5	279.1
Colorectal	186.3	362.5	249.3	264.9

of all newly diagnosed cancer cases in persons aged 65 and over.

Age-specific incidence rates by gender and race for all cancer sites combined and the four major cancer sites are shown in Table 2. Elderly men of both races had higher all-site cancer, lung and bronchus cancer, and colorectal cancer incidence rates than elderly women for all age groups. Prostate cancer incidence rates were greater among black men than among white men. All-site cancer and lung and bronchus cancer incidence rates were greater among white women as compared to black women for all elderly age groups.

Distribution by stage at diagnosis and by age group for each of the major cancer sites is shown in Table 3. The proportion of persons for whom the cancer stage was unknown increased with age for all four of the major cancer sites.

Annual age-adjusted cancer incidence rates from 2000 through 2008 for select cancer sites among the elderly in West Virginia are presented in Figure 2. The age-adjusted incidence rate for colorectal cancer steadily decreased since 2004. Although the annual incidence of prostate cancer showed a marked fluctuation, there was an overall decrease over the time period examined. Female breast cancer incidence rates decreased slightly. Lung and bronchus cancer rates remained relatively stable with small fluctuations from year to year.

Discussion

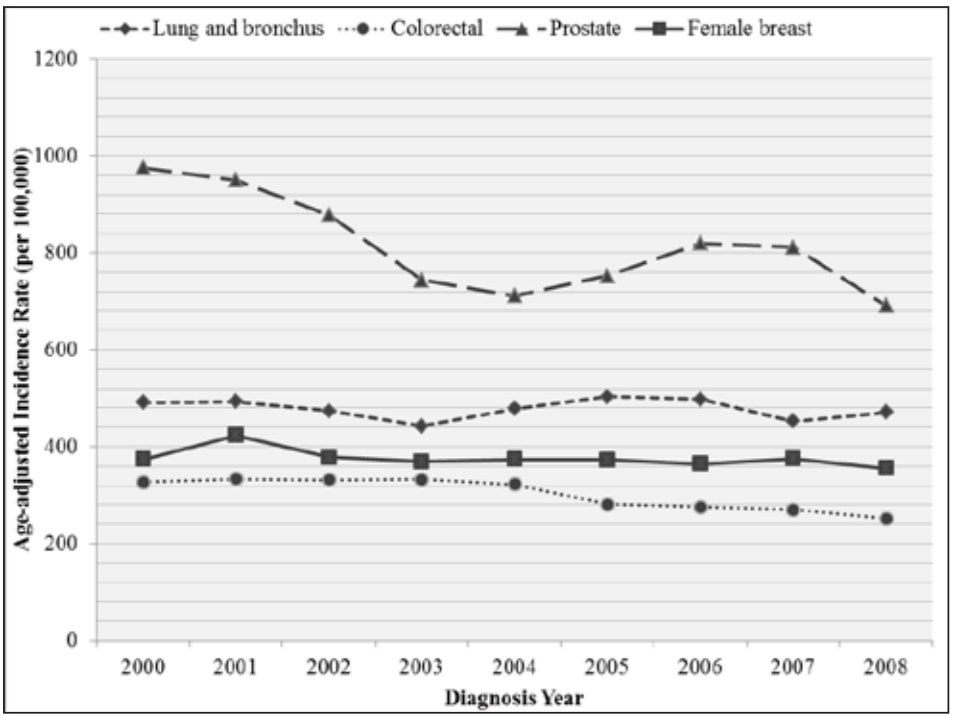
Cancer is a major public health issue for West Virginia elderly. Persons 65 and older represent just 16% of West Virginia's population but represent approximately 56.8% of all new cancers. Approximately 6,262 elderly persons are diagnosed with some form of reportable cancer in West Virginia each year. By 2030, the number of elderly in West Virginia is projected to reach close to 426,500 people, with an increase of approximately 149,550 persons 65 and older from the year 2000.[1] If current all-site cancer incidence rates in persons 65 years and older remain stable over the next two decades, approximately 9,399 incident cases would be expected to occur among elderly West Virginians in the year 2030. Thus, this disease will become an even greater burden to individuals, families, and society as a whole.

In West Virginia elderly, the most common specific cancer sites are lung and bronchus, prostate, colorectal and female breast. These cancers are also the most frequently reported cancers among elderly men and women nationally.[12]

Cancer incidence rates varied between racial and gender groups. In general, the burden of cancer was greater in men than women. The peak age of incidence varied according to cancer site, gender and race. The differences in incidence rates observed for the various cancers between elderly age group, gender and race may be explained by differences in exposures to risk factors (e.g. smoking, obesity), socio-economic differences, and cancer screening practices among these groups.

The proportion of unstaged cancers increased with age for the four major cancer sites, which is consistent with other reports.[13,14] This may be due to: (1) a greater prevalence of co-morbidities found in this population which may result in a more conservative diagnostic approach (e.g. physician assumed inability of the patient to tolerate various staging procedures); [15] (2) patient refusal to undergo further testing or treatment; [15] (3) lower levels of private health insurance or lower

Figure 2. Age-adjusted Incidence Rates (per 100,000) for Select Cancer Sites among Elderly (aged 65+) in West Virginia by Year of Diagnosis, 2000-2008.



Cancer Site Stage at Diagnosis	Age Group (years) <65 %	65-74 %	75-84 %	85+ %
Lung & Bronchus				
Local	16.3	21.0	20.0	11.2
Regional	24.5	24.0	21.0	13.6
Distant	51.4	45.4	44.8	44.5
Unknown	7.8	9.7	14.2	30.7
Prostate				
Local	85.3	87.6	82.9	65.6
Regional	9.2	5.5	2.5	2.8
Distant	2.7	3.0	4.9	9.8
Unknown	2.8	3.9	9.6	21.8
Colorectal				
Local	38.9	46.8	46.7	40.4
Regional	34.6	31.3	31.7	27.5
Distant	20.9	16.1	13.9	12.9
Unknown	5.7	5.8	7.7	19.2
Female Breast				
Local	57.9	63.9	68.0	58.4
Regional	34.0	27.3	22.6	21.9
Distant	5.6	5.7	4.7	6.1
Unknown	2.5	3.0	4.8	13.6

Stage was coded using Collaborative Stage Derived SEER Summary Stage 2000.

Table 3. Distribution of select primary cancer sites by stage at diagnosis and age at diagnosis, West Virginia, 2004-2008.

socioeconomic status which may limit one's testing and treatment options. [14]

Among West Virginia elderly, age-adjusted incidence rates for lung and bronchus cancer remained relatively stable between 2000 and 2008. The incidence of lung and bronchus cancer in West Virginia, and other Appalachian regions, is notably higher than other regions of the country.[16] Smoking is the primary cause of lung and bronchus cancer and a common behavior in West Virginia, where approximately 26.8% of adults smoke.[4]

A reduction in colorectal cancer incidence over time was observed in the West Virginia elderly population and may be a reflection of better utilization of colonoscopy and removal of precancerous polyps.[17] Although colorectal cancer rates among the elderly are declining in West Virginia, incidence rates remain higher for West Virginia than for the elderly of the United States as a whole.[18] This may be due to the high prevalence of colorectal risk factors in West Virginia (e.g. obesity, diabetes) or the lower rates of colorectal cancer screening which can detect precancerous lesions that can be removed.[4-6,19]

The reasons for the observed decrease in prostate cancer rates are unknown and should be further explored to determine whether there is a true reduction in the incidence of this disease or whether the lower rate may reflect some other factor (e.g. underreporting of cases). The slight decrease in breast cancer incidence may be a result of reduced hormone therapy use following the release of the Women's Health Initiative study findings in 2002 that linked hormone therapy use with breast cancer, although this hypothesis is controversial.[20]

The information in this report illustrates the need for increased cancer prevention efforts in this Appalachian elderly population. High rates of cancer behavioral risk factors, such as tobacco use and obesity are generally observed in Appalachia.[4,5] With the expected

rise in cancer numbers, the importance of primary prevention and early detection is paramount, and should include expansion of tobacco cessation programs, weight management programs, and perhaps increased cancer screening in select elderly. Cancer screening in the elderly, particularly in those greater than 75 years of age is a controversial issue as it is not always clear if the benefits of screening outweigh the risks.

An increase in the number of elderly cancer patients will result in increased health care costs. Thus, further research is necessary to better understand the economic burden of cancer in the elderly on society (e.g. increase in Medicare taxes and health insurance premiums). The increase in cancer numbers will also require an increase in the demand of supportive, palliative, and end of life medical services. Therefore, attention must also be placed on increasing the number of cancer care providers (e.g., oncologists, social workers, nurses, etc...) who deliver services for this growing population. Finally, the information in this report emphasizes the increasing need for research focused on cancer screening and treatment in elderly persons.

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A Rare Cause of Postpartum Chest Pain

Sumesh Jain, MD
Bruce Chen, MD
Jason A. Moreland, MD
WVU Department of Medicine, Section of Cardiovascular Diseases, Morgantown

Abstract

We report the case of a 45-year-old postpartum female at low risk for coronary artery disease (CAD) who presented with chest pain, a normal electrocardiogram (ECG) and elevation of serial troponin-T levels. Coronary angiography revealed dissection of the first obtuse marginal branch of the left circumflex coronary artery. The patient was treated medically and discharged home safely.

Spontaneous coronary artery dissection (SCAD) is a rare condition. In the absence of CAD, it is seen most frequently in young females during the peripartum period. Insult from the hemodynamic stresses during pregnancy and labor combined with the underlying pregnancy related arterial wall changes is the proposed mechanism of dissection in this setting. The normal ECG in the presence of an acute myocardial infarction (AMI) in this case also demonstrates the occasional electrically silent ECG that can occur during acute compromise of the left circumflex coronary artery.

Introduction

Spontaneous coronary dissection (SCAD) is a rare condition that can result in unstable angina, acute myocardial infarction (AMI) or sudden death. The most common conditions associated with SCAD are coronary atherosclerosis and the peripartum state. The following example of SCAD occurred in a postpartum female who presented as a non-ST segment elevation acute myocardial infarction (NSTEMI).

Case

A 45-year-old, gravida 2 female (without a history of CAD) presented to an outside hospital with squeezing, left-sided chest pain at rest that radiated to the left jaw and left arm. Her chest discomfort was associated with shortness of breath and diaphoresis. The 12-lead ECG showed normal sinus rhythm with no evidence of ST segment depression or elevation or T-wave abnormalities. Her only CAD risk factor was hyperlipidemia. There was no history of trauma to the chest or any drug abuse. Two weeks prior, she underwent an uncomplicated C-section after being in labor for approximately 18 hours. Physical examination revealed normal vital signs, clear lung fields, and normal first and second heart sounds without any murmur, rub or gallop. A chest radiograph was within normal limits. The first troponin-T level measured at the outside hospital was in the indeterminate range. After being transferred to our facility, her ECG remained normal (Fig. 1) while serial troponin-T assessment showed a rising trend with a peak level of 14.55 (normal < 0.03 ng/ml). The CK-MB isoenzyme also peaked at 142 ng/ml (normal < 6.4 ng/ml) with a CK-MB index of 13.2% (normal range: 0-5%).

The patient was treated as an NSTEMI with heparin and eptifibatide infusion. Morphine and intravenous nitroglycerin drip were used for pain control. Subsequent coronary angiography showed dissection of the first obtuse marginal branch of the left circumflex coronary artery (Fig. 2), which was evident as an abrupt luminal narrowing with no response to intracoronary nitroglycerin. The other coronary arteries were essentially normal without any angiographic evidence of CAD. A left ventriculogram performed in the left anterior oblique (LAO) projection showed an EF of 45-50% with posterolateral wall hypokinesia.

The patient was managed medically as she was hemodynamically stable and also had a strong desire to breastfeed her newborn child. Percutaneous coronary intervention including stent placement would have required dual antiplatelet therapy and thereby precluded breastfeeding. She was discharged to home on long acting nitrate, beta blocker and aspirin therapy. She was doing well with no cardiac symptoms at her one month clinic visit.

Discussion

Spontaneous coronary artery dissection is an uncommon and an under-recognized cause of acute coronary syndrome, AMI and sudden death. To date there are over 300 case reports of SCAD. SCAD is predominantly seen in young to middle aged women (mean age of 40 years).[1] Thirty percent of the cases seen in females occur during pregnancy or in the peripartum period with less than one third of these patients having risk factors for CAD.[2]

Coronary artery dissection results from separation of the layers of the arterial wall creating a false lumen between the intima and media or media and adventitia. Hemorrhage into the false lumen impinges on the true lumen and reduces blood flow to the myocardium. Coronary angiography is used to establish the diagnosis. Dissection is angiographically seen either as a false lumen with delayed clearance of contrast material or simply as abrupt luminal narrowing.[3] The possibility of coronary vasospasm is excluded by the administration of intracoronary vasodilators. Intravascular ultrasound and optical coherence tomography are

Figure 1.

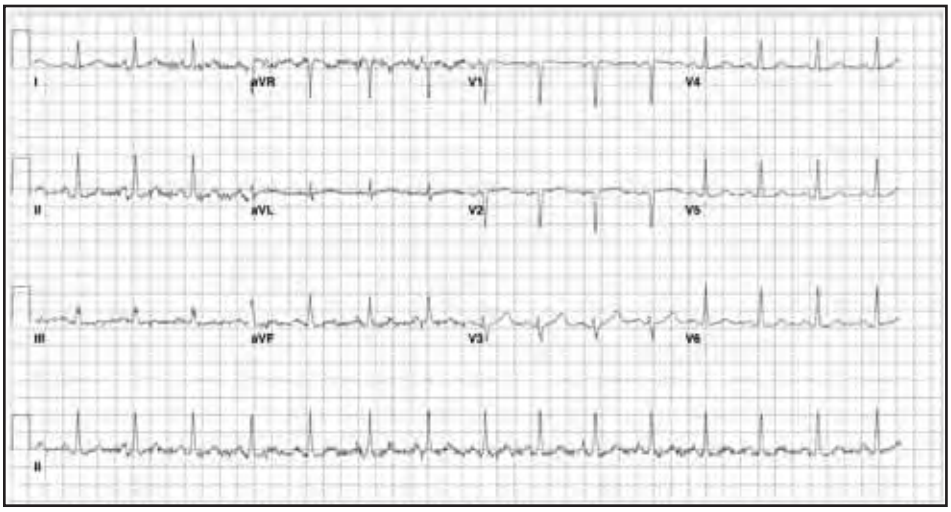
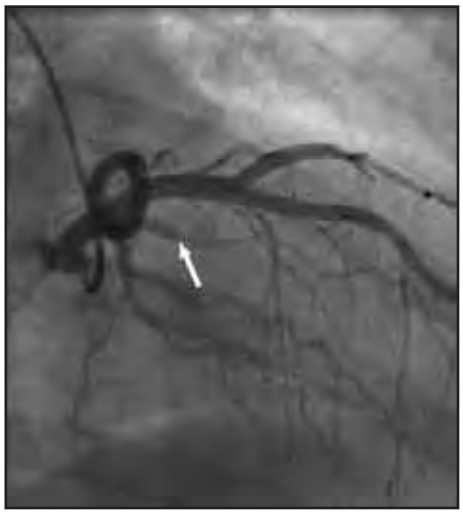


Figure 2.



modalities which can be used in adjunct with coronary angiography to confirm the diagnosis if there is diagnostic ambiguity. Our patient's coronary angiogram with abrupt luminal narrowing and no response to intracoronary nitroglycerin was consistent with coronary dissection, obviating the need for the use of these adjunctive tools.

The pathogenesis of SCAD in the peripartum period is somewhat unclear. No association has been seen with CAD risk factors. The hypothesized pathophysiology leading to dissection includes pregnancy related changes to the physiologic state of the artery and abnormal shear forces from hemodynamic changes during pregnancy. Eosinophilic infiltrates have been found in the coronary artery adventitia in autopsy studies. Proteases released from eosinophils (collagenase, peroxidase, acid phosphatase and major B protein) is responsible for fragmentation of reticulin fibers in the arterial wall. Pregnancy related hormone changes also result in abnormal proteoglycan matrix due to reduced collagen synthesis.[4-5] A 40-50% increase in cardiac output during pregnancy, which is further augmented during labor, produces the shearing force which likely initiates the intimal rupture on the vulnerable artery.[6] Another proposed mechanism is disruption of the vasa vasorum in the coronary artery leading to intramedial hemorrhage and subsequent dissection without an intimal tear.[7] On coronary angiography, an intimal tear is usually evidenced by contrast staining in the subintimal space while bleeding in the microvasculature within the arterial wall appears as an abrupt change in vessel caliber that does not improve with the administration of intracoronary vasodilating medications. It is hypothesized that normal coronaries with no atherosclerosis are more susceptible to luminal compression by intramedial hemorrhage due to an absence of the "stenting effect" of an atheroma which is relatively more rigid than the layers of a normal artery wall.[8] Pregnancy related arterial wall changes return to normal by 3 months postpartum, thereby decreasing the incidence of SCAD thereafter.

There are no definitive treatment guidelines for peripartum SCAD. Medical therapy alone, percutaneous coronary intervention (PCI) and coronary artery bypass surgery (CABG) have all been employed as treatment options. The degree of hemodynamic compromise and the location and extent of disease should help guide appropriate therapy. Thrombolytic therapy is relatively contraindicated as its use in some patients with SCAD presenting as ST elevation acute myocardial infarction has led to rapid clinical deterioration after an initial improvement. This is likely due to the reversal of the coagulation process at the site of injury, leading to increased extravasation of blood which propagates the dissection and puts larger territories of myocardium at risk.[5] Percutaneous intervention with stent placement or surgical intervention is indicated in those with an evolving dissection that is causing hemodynamic compromise by jeopardizing blood flow to significant myocardium. Hemodynamically stable patients without ongoing symptoms can be treated with medical therapy alone. Complete healing of the dissection (as evidenced by repeat angiography) has been reported in medically managed patients.[2] Table 1 summarizes the essentials of diagnosis and treatment of SCAD .

Besides pregnancy, other non-CAD related associations with SCAD include connective

Table 1. Essentials of diagnosis and treatment of SCAD

Presentation: Mostly young or middle aged female (mean age of 40yrs), otherwise at a low risk for CAD presenting with chest pain, acute MI or sudden death.
ECG: ST elevation consistent with STEMI or ST-T wave changes suggestive of myocardial ischemia.
Labs: Elevated cardiac biomarkers - troponin T, CK-MB, CK-MB index.
Coronary angiography: Coronary dissection seen as a false lumen with delayed clearance of contrast or abrupt luminal narrowing with no response to intracoronary nitroglycerin.
Treatment: No definitive guidelines. Medical therapy vs PCI vs CABG as indicated by hemodynamic stability, symptoms and extent of myocardium at risk. Thrombolytic therapy is relatively contraindicated.

tissue disorders such as Marfan and Ehlers–Danlos syndromes, vasculitides such as polyarteritis nodosa, and inflammatory disorders such as inflammatory bowel disease. SCAD has also been reported with the use of oral contraceptive pills, strenuous physical activity and drugs such as cocaine, cyclosporine and ergotamine.[7] Currently, no underlying genetic association with SCAD has been discovered.

Our patient had an AMI, but her ECG was without any changes to suggest myocardial damage. This presentation of an AMI is uncommon. It is important to note that the standard 12-lead ECG may fail to show changes of an AMI when certain regions of the heart are involved. This is particularly true of the left circumflex coronary artery and the branches of the major coronary vessels. A 15-lead ECG can be helpful for diagnosing an AMI in these otherwise electrically silent territories. This was unfortunately not performed in our patient. In the cardiac catheterization laboratory we performed a left ventriculogram in the LAO projection in addition to the routine right anterior oblique (RAO) projection, which is useful in such patients as it allows for functional assessment of the left ventricular free wall.[9]

Conclusions

Spontaneous coronary artery dissection is a rare cause of chest pain, AMI and sudden death. It should be high on the differential diagnosis of chest pain in young patients with objective evidence of ischemia, particularly women in the peripartum period. Early diagnosis of SCAD as a cause of AMI is important in order to initiate timely and appropriate treatment, especially in regard to the use of thrombolytic therapy which has the potential to cause more harm than benefit.

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Audit of the Current Drug Shortage

Gerald M. Higa
Professor, Schools of Pharmacy and Medicine, WVU

Noreen Ghani, PharmD

Michelle Gianni, PharmD

Thomas Hogan
Professor, Section of Hematology/Oncology, School of Medicine, Mary Babb Randolph Cancer Center, WVU

Introduction

This paper examines available data in an attempt to find the cause(s) of the current drug shortage.

Depending on source of information, a conservative estimate of the number of drugs currently in short supply ranges between 168 and 250.[1] Even though there is little data to support the inference that more manufacturers would ensure a lower likelihood of drug shortages, a striking disparity is still apparent between individual drugs and manufacturers of these products (Figure 1). According to the IMS Institute for Healthcare Informatics 56 of 168 of the drugs classified by this status were supplied by only one manufacturer, while production of another 46 drugs were dependent on either two or three companies.[2] And perhaps most disturbing was the finding that seven drugs were not being produced by anyone. However, it should also be noted that the small number of manufacturers that accounted for approximately 65% of the drugs on the shortage list may not necessarily be the cause of the shortage problem but rather an effect related to profit margin.

The impetus for preparing this paper is to examine the available data with the intent of providing a salient, yet balanced, perspective of the continuing drug shortage. As such, a variety of information sources including published literature and selected websites were consulted to provide a list of plausible explanations for the current national and international crisis. To further enhance reader appreciation of this complex problem, insight is provided into the chain of responsibilities and the vulnerable areas that impact both quantity and quality of output. Finally, an attempt is made to address the challenges that could potentially alleviate the problem.

Discussion

The drug shortage is not likely due to one, but rather multiple contributing factors. Arguably, among the most important involve several agencies that regulate the production and distribution of prescription medications. Precisely how much of an impact the Food and Drug Administration (FDA) has had on production deficits remain contentious. Nonetheless, spokespeople for the FDA provided evidence of more than 300 applications in the past two years alone for new or updated manufacturing facilities that were expeditiously processed by the agency.[1] Despite what appears to be a robust effort by the FDA, it is uncertain how many of these new applications were directly linked to the production of shortage drugs. It is also conceivable that some of the new or updated manufacturing plants were destined to produce drugs not on the shortage list. On the other hand, the drug shortage problem may be partially attributable to rigorous standards inherent in the FDA's Good Manufacturing Practice policy. Indeed, there is plausible belief that rigorous oversight provided by the FDA to ensure patient safety may unintentionally have also become a burden to manufacturers causing delays in drug production.[3]

Regulation of what is perceived as a linear drug distribution system linking manufacturer, wholesaler, and pharmacy is under the auspices of the Drug Enforcement Administration. A second layer of regulation is provided by the FDA and Boards of Pharmacy. While the FDA oversees the supply chain from manufacturer to wholesaler, Boards of Pharmacy have oversight from wholesaler to pharmacy. Still, overlap does occur as decisions made by both regulatory bodies ultimately impact consumers. For example, hospital and pharmacy administrators are pressured by health insurers to obtain the best prices for prescription drugs through contacts with multiple wholesale distributors. However, some wholesalers are likely to provide the best prices and most stable supply to high-volume pharmacy purchasers. Moreover, the FDA and Boards of Pharmacy seldom enforce the penalties they established for reneging on purchase contracts leading to ineffective regulation as a contributing factor to the drug shortage problem.

Another aspect of the drug shortage relates to the operative relationship between wholesaler and pharmacy. Tenuous links in the supply chain, weakened by a fragile economy, are believed to be partially responsible for the emergence of intermediary wholesalers known as the Grey Market. Conceptually, the grey market's practice of buying high and selling even higher is overtly capitalistic as it embodies the economic tenet of supply and demand. Realistically, the uncertainty surrounding their principles may be criminalistic as procurement channels, storage facilities, counterfeit products, and relabeled expiration dates remain suspect. Interestingly, revenue generated by grey marketeers is believed to be by means of a devious though apparently legal post-manufacturing arrangement

involving the drug distribution chain itself. Because it is legal, licensed wholesalers and even professional pharmacies have been engaged in this highly profitable scheme of drug diversion to the Grey Market.[4]

Figure 1. *Correlation between individual drugs and number of suppliers. Data adapted from IMS Institute for Healthcare Informatics, November 2011.*

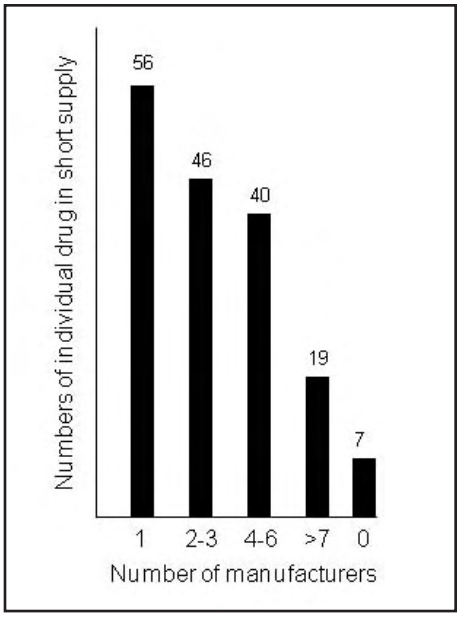
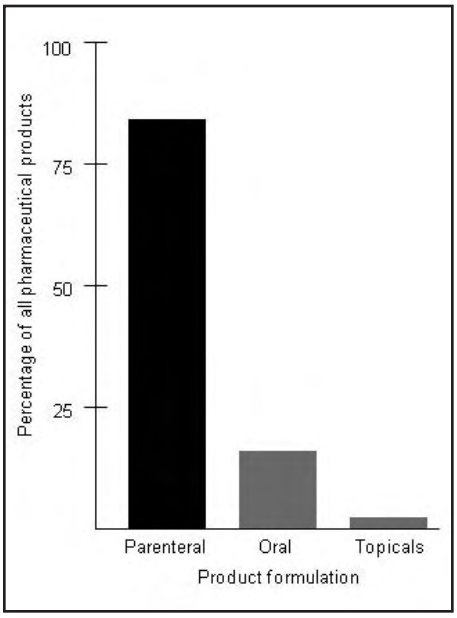


Figure 2. *Relative difference among types of product formulations affected by the shortage, most of which are generic products. Data adapted from IMS National Sales Perspectives, August 2011.*



Despite a number of limitations regarding appropriate controls over drug production and distribution, it is pertinent to discuss the issue of revenue as an incentive. One perspective of the shortage relates to data collected by the University of Utah Drug Information Service in partnership with the American Society of Health-System Pharmacists.[1,5] From an apparent nadir of approximately 60 drugs in 2004, the number has quadrupled over the past seven years. Also not surprising is the observation that approximately 80% of the shortages are generic, and primarily inexpensive parenteral products (Figure 2).[6] What is particularly interesting is that during the 10-year period from 2001 to 2010, the total sales revenue of generic sterile injectables actually tripled from approximately $1.5 billion in 2001 to over $4.6 billion, an increase of 250% in terms of 2001 dollars.[7] While appearing quite robust, these rather astonishing figures may be trivialized by the majority of manufacturers because of the miniscule per-product profit-margin. Thus, rather than acting as an incentive to produce generic drugs, it is more aptly viewed as a deterrent. Adding further to the apparent lack of motivation, five manufacturers, out of approximately 80, account for nearly 75% of the total sales volume. Although not insignificant, the remaining 25% of the total sales volume can be diminished by manufacturing techniques requiring sophisticated equipment and procedures, demanding dedicated product lines, and exposing the process to more quality control oversight, potentially resulting in substantially longer delays than drugs manufactured by the major pharmaceutical companies.

Big pharma also has an impact on the drug shortage by manipulating the situation for competition by generic drugs. For example, a mega-proposition involving the "generification" of atorvastatin (Lipitor™) could have an enormous impact on competing in the generic market. Briefly, the patent on Pfizer's block-buster drug expired in June 2011. Through an agreement between Pfizer and Ranbaxy, marketing of the first generic version was projected to occur in late 2011. However, quality issues at two Ranbaxy manufacturing plants in India threatened to further delay introducing the generic facsimile into the US market. Perhaps fortuitously, Pfizer also has a *quid pro quo* agreement with Watson Pharmaceuticals that would provide the US generic manufacturer with the brand product to sell as atorvastatin at an entry-level generic price, in return for a share of sales.[8] In addition, in an attempt to retain, or even increase, Lipitor's share of the statin market, Pfizer has also partnered with several major insurance companies that underwrite prescription drug-benefit plans. Part of the agreement includes provision of Lipitor below the prevailing cost of the first generic atorvastatin, in exchange for a monopoly on dispensed atorvastatin prescriptions. While significant savings associated with a brand name product will be realized by many in the public and private sectors, these types of "mega-ceutical" posturing can effectively discourage other generic manufacturers from competing in this, and future blockbuster-turned- generic markets, as well as unilaterally preventing further time-dependent declines in generic prices.

The other important component of the revenue equation is cost, not only those related to labor, materials, and equipment, but also hidden expenses. A recent paper attempted to quantify the economic impact the shortage had only on hospital pharmacy personnel.[9] Because of the lead role pharmacies play in drug acquisition, drug dissemination and drug safety, the finding that pharmacy personnel expended more effort

than any other health care provider trying to rectify the situation was not unexpected. What is relevant to this specific situation was the finding that the combined time spent by pharmacist and technicians totaled a median of 17 hours per week, which translated into labor costs alone of approximately 4 million dollars for the same period of time. Another less conspicuous cost associated with the shortages of specific generic drugs is incurred as a consequence of having to "substitute" the branded product or a more expensive alternative. For instance, patient and health-system costs related to the selegiline shortage during the latter part of 2007 have been reported.[10] Using linear regression to analyze data, the authors estimated an additional cost of $75,000 over the first four months of the shortage.

That the drug shortage problem persists does not mean that the FDA does not respond to all queries. The FDA does respond, but only after it becomes aware of an impending situation. For example, it has been reported that the FDA can and has prevented major shortages if advance notification is given.[11] In addition, the FDA was able to decrease the shortage of approximately 135 drugs over the past two years, 50 of which occurred during the first half of 2011 alone. However, except for one notable action of the FDA, which was to notify other manufacturers to expect increased demand, precisely what other types of actions the Agency employed to avert the shortage remains unclear.

The lack of authority to mandate that all drug companies notify hospitals and other health-care organizations of anticipated shortages in a timely manner is often regarded as the principal shortcoming of the FDA. Currently, only the sole manufacturer of a life-saving drug is required to inform the FDA about any impending decision to discontinue a single-manufactured product.[12] Alternatively, the U.S. generic manufacturer trade group suggests that constraints on FDA authority may not necessarily be the agency's most important limitation; instead, the group contends that the agency's major deficiency is not possessing an adequate amount of technical drug manufacturing expertise. As a result, the generic industry's trade group recently proposed to the FDA an initiative to create a private-sector, advanced notification system that will inform stakeholders, including the public, of possible drug shortages.[13]

Currently, two pending drug shortage bills (i.e., HR 2245 and S296, otherwise known as Preserving Access to Life-Saving Medications Act) would require manufacturers to notify the FDA of any anticipated drug supply disruptions at least six months in advance. In addition, an executive order dated Oct. 31, 2011 directed the FDA to ask drug manufacturers to voluntarily provide information about any impending delays or interruptions that might impact supply. The importance of this executive order has precedent. In the latter part of 2010, such early notice to the FDA prevented shortages of approximately 35 drugs. While encouraging, these attempts must nevertheless be balanced against the disconcerting outcome that these types of enforceable legislation or policies may not completely resolve the drug shortage problem.

Finally, price control constraints associated with Medicare have also been identified as a critical contributing factor to the drug shortage problem.[1] A 2003 law limited Medicare payment for physician-administered drugs. As a result the flat-line prices for some generic drugs have been sufficient to discourage manufacturers from producing them. This is another area in which legislative changes are needed.

Conclusion

West Virginians, and many other U.S. citizens have been affected by the drug shortage. Although the causes of the shortage have not been fully elucidated, it is clear that stringent policies are necessary. What appears rational is a dual approach that: 1) incorporates a mechanism to facilitate systematic changes, and 2) provides reliable early warnings when drugs are about to become scarce.

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4. Update on current use of smokeless tobacco and associated disease morbidity – US and WV
5. Update on current use of tobacco in pregnancy – US and WV
6. Current controversy regarding the use of non-tobacco nicotine delivery devices, e.g., Snus, e-cigarettes - US and WV
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Resubmissions Due by:	May 1, 2014
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Acute Arthritis of the Hip – Case Series Describing Emergency Physician Performed Ultrasound Guided Hip Arthrocentesis

Joseph Minardi, MD
Nick Denne, MD
Miryam Miller, MD
Hollynn Larrabee, MD
Owen Lander, MD
West Virginia University, Department of Emergency Medicine, Morgantown, WV

Abstract

We report two cases of acute hip arthritis where arthrocentesis was able to be performed rapidly, at the bedside by the emergency physician using ultrasound guidance, expediting diagnosis and patient care. In the first case, the patient, who was 23 weeks pregnant, was diagnosed with septic hip arthritis, taken for operative washout of the joint and did very well postoperatively with no pregnancy or other complications. In the second case, the patient was determined to have a noninfectious etiology and also did well. Skilled ultrasound guidance allows hip arthrocentesis to be performed by the treating clinician, decreasing the time to diagnosis and definitive care.

Introduction

Making the diagnosis of acute hip arthritis is critical as septic arthritis may lead to rapid, irreversible destruction of the joint and long-term morbidity. Arthrocentesis of the hip is traditionally performed in the fluoroscopy suite by interventional radiologist or in the operating room by orthopaedic surgeons. The capability to perform this procedure is often not readily accessible leading to delays in diagnosis and patient care. We describe two cases of acute hip arthritis where arthrocentesis was performed in the emergency department by the treating clinician. The use of ultrasound allowed the arthrocentesis to be performed safely and rapidly, at the bedside, expediting diagnosis and patient care.

Case Presentation

Case 1

An 18 year old female presented to the emergency department with five days of atraumatic right hip pain. She denied fevers or other symptoms and was 23 weeks pregnant (uncomplicated). Medical history was unremarkable. She denied IV drug use or recent invasive procedures.

On exam, she was afebrile with normal vital signs. She was well-appearing, in no distress with a gravid abdomen. The right hip and knee were held slightly flexed. Ranging the hip produced pain. Exam was otherwise negative. Lab studies revealed WBC 16, C-reactive protein 15.164, and ESR – 47.

Bedside ultrasound of the right hip revealed a significant effusion. Arthrocentesis was performed under direct bedside ultrasound guidance. Approximately 20 cc of turbid, brown, and foul-smelling fluid was obtained and analysis revealed:

- Gram stain - rare WBCs, several PMNs, no organisms or crystals
- Cell count – RBC 19K, WBC 35.6K, 83% PMNs
- Glucose - <5
- Protein - 6.3

Orthopaedic surgery was consulted and the patient underwent operative washout where more grossly purulent fluid was encountered. The patient did well postoperatively and was placed on 6 weeks of IV antibiotics. Cultures remained negative. Her pregnancy proceeded without complication.

Case 2

A 15 year old male presented to the emergency department with right hip pain for 1 day. He initially denied injuries or fevers. Medical history was unremarkable. He denied IV drug use or recent invasive procedures. On exam, he was afebrile and vital signs were normal. He was in significant distress, holding the right hip and knee flexed with the hip slightly internally rotated. His right hip appeared frankly rigid and any range of motion produced severe pain. The remainder of his exam was unremarkable. X-rays were negative. Laboratory analysis revealed WBC – 21, PMN-83%, Bands-1%. Bedside ultrasound of the right hip revealed a significant right hip effusion. Ultrasound guided arthrocentesis was performed at the bedside by the emergency physician using sterile technique. Approximately 20 cc of turbid, yellow fluid was obtained and sent for analysis revealing:

- Gram stain – rare WBCs, several PMNs, no organisms or crystals
- Cell count – RBC 29.5K, WBC 53.5K, 96% PMNs
- Glucose – 20
- Protein – 5.9

The patient later recalled a possible straining injury while skateboarding and an MRI was recommended by pediatric orthopaedics. The MRI revealed a small anterior labral tear and hip effusion. The patient was observed overnight and symptoms significantly improved, so a diagnosis of reactive arthritis was made. He was discharged in good condition, fully able to ambulate. All cultures remained negative.

Figure 1. *Case 1 ultrasound image of a sagittal-oblique view of the right hip showing the femoral head (arrow), femoral neck (closed arrowhead), and significant hip effusion (open arrowheads).*

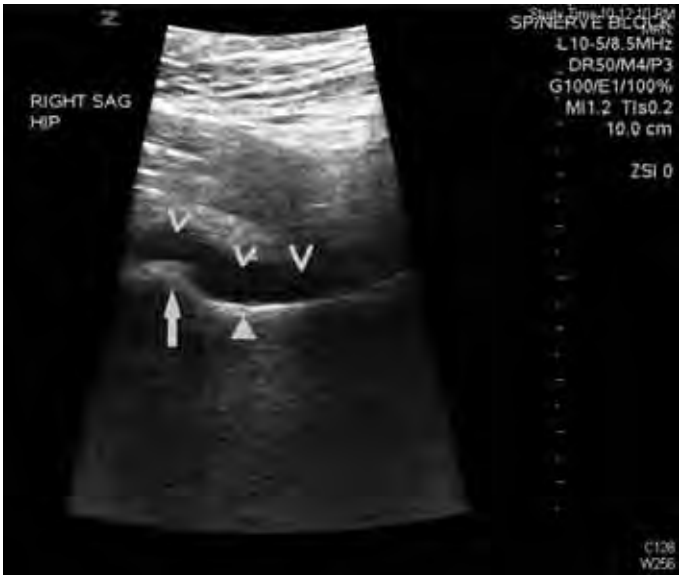


Figure 2. *Case 1 comparison view of the unaffected left hip. A sagittal-oblique ultrasound image of the left hip showing the femoral head (arrow) and femoral neck (closed arrowhead). No significant synovial fluid is visible.*

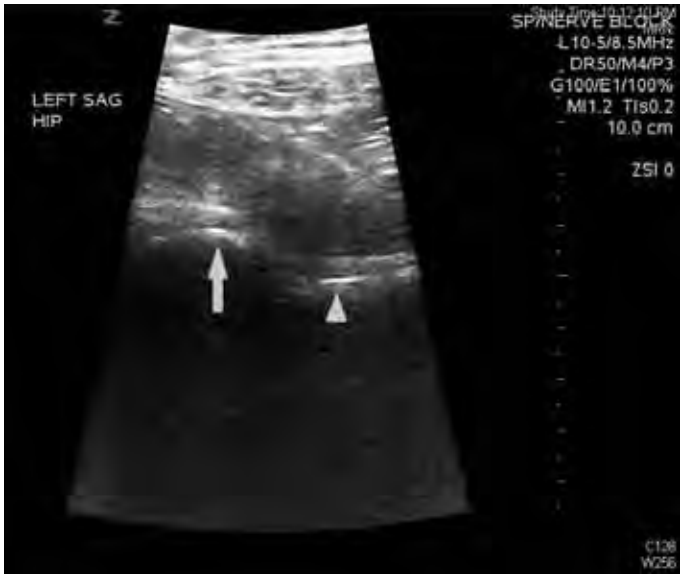


Figure 3. *Case 2 ultrasound image of a sagittal-oblique view of the right hip showing the femoral head (arrow), femoral neck (closed arrowhead), and significant hip effusion (open arrowheads).*

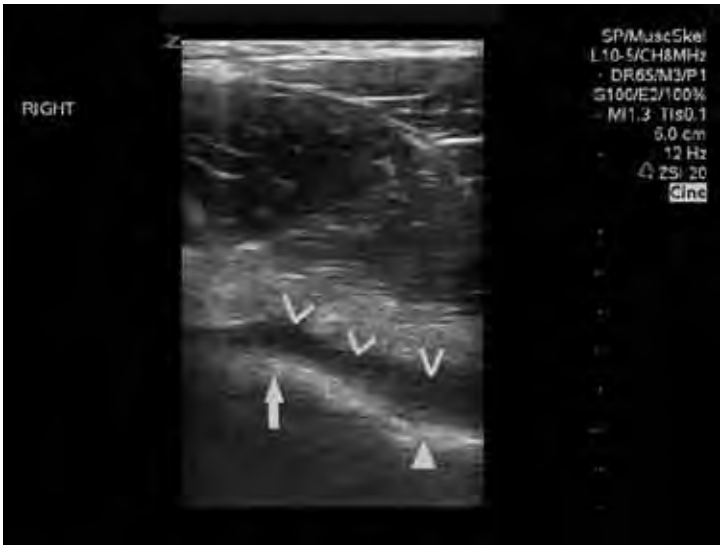
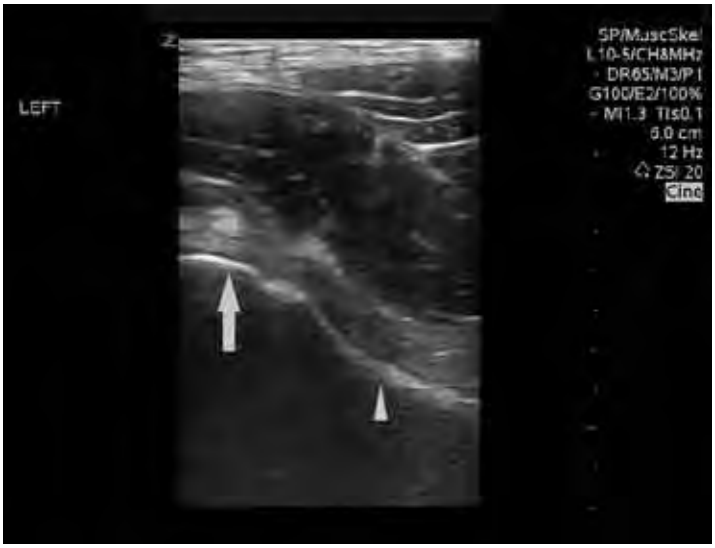


Figure 4. *Case 2 comparison view of the unaffected left hip. A sagittal-oblique view of the left hip showing the femoral head (arrow) and femoral neck (closed arrowhead). No significant synovial fluid is visible.*



Discussion

Arthrocentesis is a key diagnostic procedure in acute inflammatory arthritis. Hip arthrocentesis is usually performed by specialists in facilities that are not readily available. It is a procedure that often requires procedural sedation in children. The use of ultrasound to guide hip arthrocentesis was described in 1989 by Mayekawa and colleagues and has been performed by emergency physicians in mostly pediatric patients with good results.[4,5,6,7] Bedside ultrasound assists in the identification of hip effusions and allows arthrocentesis to be performed under direct guidance, making aspiration of this joint more feasible for clinicians who are experienced with bedside ultrasound and ultrasound guided needle placement. Ultrasound played a crucial role in both of these cases. In the first case, it allowed the differential diagnosis to be rapidly narrowed and definitive diagnosis

to be made without exposing the fetus to potentially harmful ionizing radiation. In the second case, the necessary diagnostic procedure was able to be performed safely and rapidly in the emergency department.

Figure 1 from case 1 shows a sagittal-oblique view of the right hip with a significant effusion. Comparison is made to the left hip (Figure 2) with a minimal amount of synovial fluid present.

Figure 3 from case 2 again shows a sagittal-oblique view of the right hip with a significant effusion with a comparison view of the asymptomatic left hip (Figure 4) showing no significant effusion.

The use of ultrasound by clinicians to aid in diagnoses and assist procedures is growing rapidly. Ultrasound is a tool that is safe, portable and accessible. The skilled use of ultrasound has been shown to make procedures safer and more efficient.[8] Additionally, ultrasound use has been shown to improve diagnostic accuracy and efficiency at a relatively low cost without exposure to ionizing radiation.[9] Ultrasound is a tool that can help clinicians in many medical specialties provide better care to patients.

Conclusion

We report 2 patients with acute hip arthritis whose management was significantly aided by a clinician-performed ultrasound guided hip arthrocentesis – a procedure not commonly performed by emergency physicians. These cases are two examples illustrating how the skilled use of ultrasound by clinicians can improve patient care.

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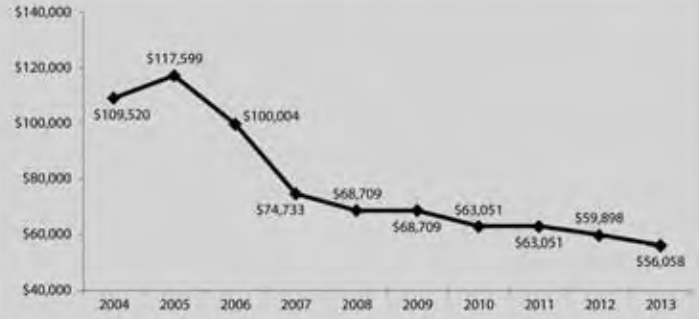

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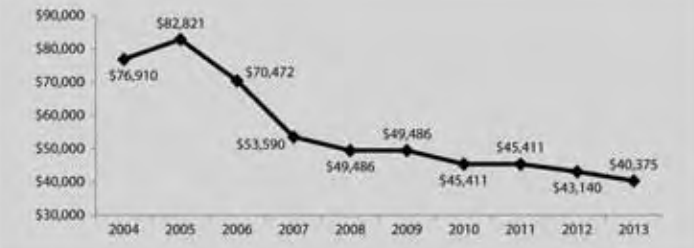

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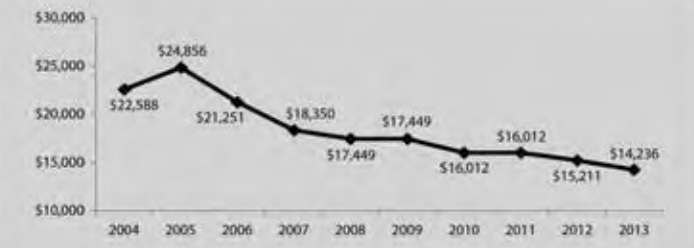

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An Atypical Presentation of Testicular Torsion: A Case Report

Robert Jansen, MD
Chief Resident, Division of Urology, WVURCBHSC

Henry Fooks, MD
Assistant Professor, Division of Urology, WVURCBHSC

Stanley Zaslau, MD, MBA, FACS
Program Director, Professor and Chief, Division of Urology, Department of Surgery, WVURCBHSC

Abstract

Testicular torsion is an emergent condition requiring prompt surgical intervention to avoid permanent testicular compromise and death. As its symptoms overlap with other disease processes, diagnosis is sometimes difficult. When considering the presenting symptoms, one must be careful not to ignore unusual causes of torsion and misdiagnose the patient. In this case report we describe an unusual etiology of testicular torsion (traumatic) with an atypical patient presentation (mildly painful) which presented many obstacles before proper diagnosis and treatment.

Introduction

Testicular torsion is a urologic emergency in which twisting of the spermatic cord results in ischemic injury to the affected testicle. The incidence has been widely reported as affecting 1 in 4000 males under the age of 25 and accounting for 25-33% of acute scrotum cases in the pediatric population.[1,2] Patients most commonly present with testicular pain, a high-riding testicle with a possible horizontal lie, and an absent cremasteric reflex on the affected side. Presenting symptoms may also include abdominal pain, nausea and vomiting, and a general ill appearance. Unfortunately, these symptoms overlap with other conditions including acute epididymo-orchitis, and quite often it is scrotal exploration that confirms the diagnosis. In this article we present a case of testicular torsion which was atypical in its etiology and presenting symptoms.

Case Report

An 18 year old Mexican male presented to the emergency department (ED) after sustaining a fall at a construction site. He fell approximately 7-10 feet out of a window and landed straddling a pile of lumber. He arrived in the ED four hours later and upon immediate examination, was observed to be resting comfortably in bed. He exhibited no signs of distress and complained only of moderate (6/10) pain in his left testicle. The testicle was tender, appearing high-riding and with a horizontal lie. His cremasteric reflex was absent on the left side but present on the right. Color doppler ultrasound revealed absent blood flow to the left testicle (Figure 1), thus the patient was urgently taken to the OR for scrotal exploration and evaluation for testicular torsion.

Intraoperatively, the left spermatic cord was discovered to be torsed 720 degrees, resulting in a dusky, deep purple appearance of the left testicle. After manual detorsion we bathed the testicle in 30cc of papavarine with 10cc doses every 15 minutes and following a significant waiting period, it appeared to return to its natural color. We deemed it salvageable and performed a bilateral orchiopexy. The patient was ultimately discharged home the next morning and follow-up imaging 3 weeks later confirmed normal testicular blood flow (Figure 2). He continued to do well at 3 and 6 month follow up visits with normal testicular examinations and no complaints of scrotal pain.

Discussion

Testicular torsion was first described by Delasiuave in 1840 and the first review article on isolated case reports was written in 1901 by Scudder.[3] Torsion may be extravaginal (proximal to the tunica vaginalis) or intravaginal (within the tunica vaginalis). Intravaginal torsion and its associated bell-clapper deformity (defect of testicular mesentery) occurs in 65-80% of cases. Other congenital factors associated with torsion include hypermobile testes, horizontal testicular lie, hyperactive cremasteric reflex and defective gubernacular attachment.[4] As torsion is a time-sensitive condition, delayed presentation and longer symptom duration lead to higher rates of orchiectomy. Multiple series including two meta-analyses by Visser and Heyns report testicular salvage rates of 90% if detorsion is performed within 6 hours of the onset of symptoms, 50% at 12 hours and 10-25% at 24 hours.[4-6, 10]

One unique aspect of our patient's case of testicular torsion was the traumatic etiology. Traumatic torsion as a clinical entity has a reported incidence of 4-8%,[5,7] discussed in the literature as isolated case reports. Salvage rates have been reported in the range of 0-100%, with results being time-dependent. As trauma is an uncharacteristic cause of torsion, multiple pitfalls exist in the proper diagnosis and treatment. Patients may be delayed in presentation due to thinking that their symptoms were due to trauma only and would resolve over time.[5,8] Physicians may also be more inclined to clinically

Figure 1: *Color flow duplex Doppler ultrasound image of the left testicle demonstrating absent intratesticular blood flow. The testicular parenchyma is homogeneous.*

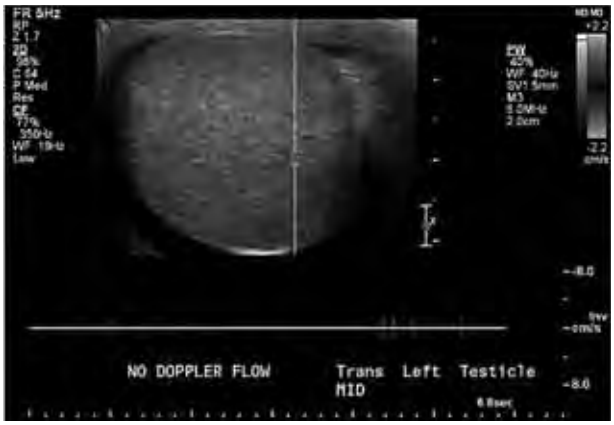
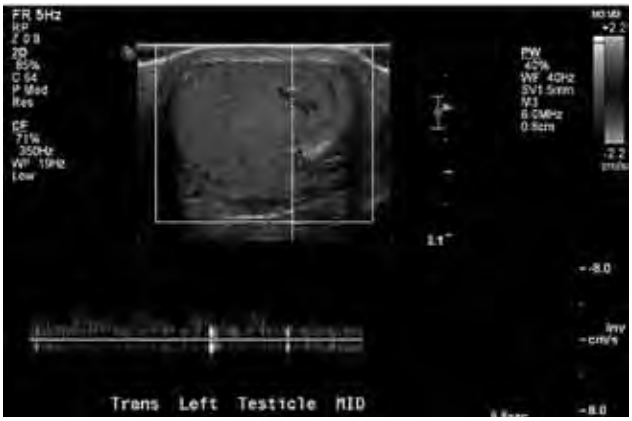


Figure 2: *Color flow duplex Doppler ultrasound image of the left testicle demonstrating good intratesticular blood flow. The testicular parenchyma is homogeneous. This image was obtained 3 weeks after left orchiopexy was performed.*



diagnose the condition as a traumatic scrotal hematoma or even acute epididymo-orchitis, thus further delaying treatment. One may also consider hydrocele or hematocele in the differential diagnosis. One report cited misdiagnosis (74%) as the leading cause of malpractice claims related to testicular torsion; acute epididymitis/epididymo-orchitis were the suspected diagnoses and interestingly, 3 of the 28 misdiagnosed cases were deemed traumatic in origin.[9] As such, one must be wary not to overlook traumatic insult as a cause of torsion and our patient's presentation with a straddle injury provided an opportunity for this important consideration. Table 1 presents our suggested list of differential diagnostic considerations for causes of atypical testicular torsion.

Our patient's lack of distress also provided an obstacle to the torsion diagnosis. Four hours post-injury, he complained only of left testicular pain without associated symptoms. Aside from the characteristic appearance of the scrotum/testicle, torsion patients tend to appear visibly uncomfortable due to their significant amount of pain. Considerable pain, testicular/scrotal edema and an indurated, dark-appearing testicle are the most common presenting symptoms. Further, nausea, vomiting and abdominal pain may be experienced in 5-7% of cases.[11] Unfortunately, other conditions such as epididymitis may present itself in a similar fashion, with pain and edema being present more than half of the time, and scrotal erythema noted in approximately one-third of patients.[11] This case demonstrates a situation where an atypical etiology and uncharacteristic presentation may have prevented the proper diagnosis from being made.

Conclusion

Testicular torsion of a traumatic etiology is a rare, yet significant injury which, due to its rare occurrence and atypical patient presentation, may deter evaluating physicians from making an accurate diagnosis. One must be vigilant and strongly consider torsion in the differential diagnosis of traumatic testicular injury. A high clinical index of suspicion is paramount in avoiding a misdiagnosis and potential loss of the affected testicle.

Table 1: Differential diagnostic considerations for causes of atypical testicular torsion.

- Acute epididymitis
- Epididymo-orchitis
- Hydrocele
- Hematocele
- Scrotal hematoma
- Trauma to inguinoscrotal region

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Glove Perforations with Blunt Versus Sharp Surgical Needles in Caesarean Delivery: A Randomized Trial

Michael L. Stitely, MD
Associate Professor and Consultant, Dept. of Women's and Children's Health, Dunedin Hospital and Dunedin School of Medicine, University of Otago, Dunedin, New Zealand

Jessica Close, DO
Attending Physician, Meritus Health, Women's Health Center, Hagerstown, MD

Aaron Ferda, MD
Resident Physician, University of Kentucky College of Medicine, Dept. of Obstetrics and Gynecology, Lexington, KY

Suwan Mehra, MD
Attending Physician, West Virginia University, Dept. of Obstetrics and Gynecology, Morgantown, WV

Brian Malson
Surgical Technician, West Virginia University, Dept.of Obstetrics and Gynecology, Morgantown, WV

Wanda Hembree, MD
Attending Physician, West Virginia University, Dept. of Obstetrics and Gynecology, Morgantown, WV

Research conducted by the Department of Obstetrics and Gynecology, West Virginia University School of Medicine, Morgantown, WV, USA.

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The study was registered with the national clinical trials registry at www.clinicaltrials.gov (NCT00736580).

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This study was presented at the American Congress of Obstetricians and Gynecologists District IV meeting in Asheville, NC, USA on October 16, 2009.

Abstract

Aims: To compare the rate of glove perforations and surgeon satisfaction when utilizing blunt surgical needles compared to conventional sharp surgical needles.

Methods: Patients undergoing Caesarean delivery were randomly assigned to the use of blunt or sharp surgical suture needles. Surgical team members reported any known needlesticks or perforations of gloves and the primary surgeon completed a survey to gauge their satisfaction with the needles. Glove perforation was assessed by suspending gloves and filling with water. The chi-square test was used to assess categorical variables and the Mann-Whitney U-test was used to assess ordinal data.

Results: A total 240 patients were enrolled into the study. There was no statistically significant difference in the rate of glove perforation per case between groups assigned to sharp (24%) or blunt surgical needles (26%). (RR 1.05, 95% CI 0.68-1.63). There were significant differences in the surgeon satisfaction surveys, with surgeons in the sharp needle group being more satisfied with the tissue penetration of the needle (p<.001), needle integrity (p=.01), force to penetrate tissue (p<.001) and control of bleeding at the needle insertion site (p=.001). Surveys from surgeons in the blunt needle group showed a statistically significant improvement in the perceived safety profile of the blunt needles (p<.001)

Conclusions: There was no significant difference in the rate of glove perforation between blunt and sharp surgical needles during Caesarean delivery. Overall surgeons were more satisfied with the sharp surgical needles.

Introduction

Blood-borne pathogens such as hepatitis B, hepatitis C and human immunodeficiency virus pose a serious risk to surgical team members. Caesarean delivery is a common operation, comprising more than 30% of all births in the United States.[1] Serrano et al found that a glove perforation occurs in 44% of primary Caesarean delivery cases.[2]

The American College of Surgeons has endorsed the universal adoption of blunt suture needles for closure of muscle and fascia in order to reduce needlestick injuries.[3]

In a non-randomized study conducted by the Centers for Disease Control and Prevention, there were 87 percutaneous injuries from 1464 gynecologic surgical procedures.[4] Seventy-three percent of these cases utilized conventional curved surgical needles, but these needles accounted for 92% of the injuries. There were no injuries associated with the blunt needles that were utilized in 4% of the surgical cases.

A recent trial published by Sullivan et al showed a statistically significant reduction in the number of cases exhibiting a glove perforation when blunt needles (7.2%) were used compared to conventional sharp needles (17.5%) during Caesarean delivery.[5] There was no mention of the effect of double gloving or of the total number of gloves tested in each group.

However, a recent study from the same institution that compared blunt needles versus sharp needles for reducing glove perforations during obstetric laceration repairs showed no statistically significant difference between the two groups (1.84% vs 2.26% 95% CI 0.2-2.95).[6]

The objective of this study was to estimate the effect of using blunt surgical needles during Caesarean delivery in an attempt to reduce glove perforations and therefore exposure to blood-borne diseases.

Methods

This randomized prospective trial was reviewed and approved by the West Virginia University Institutional Review Board. The study was registered with the national clinical trials registry at www.clinicaltrials.gov (NCT00736580).

Any adult patient undergoing Caesarean delivery at West Virginia University Hospital was consecutively enrolled. A waiver of informed consent was granted by the Institutional Review Board as part of the ethics board approval of the study. The waiver of consent was requested to allow for the enrollment of urgent and emergent cases into the study without delaying delivery. Patients were randomized using a simple randomization sequence using a computerized random number generator in accordance with the Consolidated Standards of Reporting Trials (CONSORT).[7] Assignments were placed in sequentially numbered opaque envelopes. The envelope was opened during the instrument set-up for the case by the surgical technician. Once cases were assigned to the blunt surgical needle group or the sharp surgical needle group, the surgeon selected the size and types of suture to be utilized for the case. Allocations to each group were not concealed from the surgical team members.

Glove types used included Protegrity or Esteem brand gloves manufactured by Cardinal Health Inc. Suture types used were from the commercially available selections from United States Surgical brands.

At the conclusion of the case all gloves were collected in labeled sealed plastic bags. Each member of the surgical team completed an information card indicating: level of training, role in the surgery, dominant hand, known needlestick, known glove puncture, visible blood on skin, use of double gloving and blood on the under glove (if double gloved). Length of surgery and urgent/emergent or non-urgent nature of the procedure was also collected on a case information card. The primary surgeon then completed a surgeon satisfaction survey that used a Likert scale questionnaire that surveyed surgeon's satisfaction with needle tissue penetration, needle integrity, overall safety, the force needed to penetrate tissue and control of bleeding at the tissue entry point.

Gloves were tested for perforation utilizing the method defined by the USFDA in the Federal Register.[8] This method suspends the gloves after filling with 1000 mL of water and then visually inspecting for leaks both immediately and after two minutes have elapsed. Gloves were tested by three members of the research team (JC, AF, BM) who were not blinded to the allocation group of the gloves being tested. A sample of 144 control gloves that were not used in surgery were also tested utilizing the same testing method.

The sample size was determined a priority based on the primary outcome measure using power of 80%, α of 0.05 with an expected 50% reduction in glove perforations

Table 1. ***Glove perforations per case by study group.***

	No perforation (n=180, 75%)	Perforation (n=60, 25%)
Blunt Needle Group (n=117)	87 (74%)	30 (26%)
Sharp Needle Group (n=123)	93 (76%)	30 (24 %)
p-value		0.82

Table 2. ***Glove perforations per total number of gloves by study group.***

	No perforation (n=2722, 97%)	Perforation (n=72, 3%)
Blunt Needle Group (n=1384)	1347 (97%)	37 (3%)
Sharp Needle Group (n=1410)	1375 (98%)	35 (2 %)
p-value		0.75

from the 30% expected perforation rate in the standard sharp needle group to 15% expected in the blunt needle group. The calculation yielded a sample size of 238 patients.

Additional information was collected to allow analysis of other factors that may influence glove perforation rates such as urgent-emergent versus non-urgent status of cases and the time taken to complete the case. Other surgeon specific characteristics were recorded including the dominant hand of surgical team members, role in the surgery, use of double gloving, and whether any glove punctures were detected by the surgical team members at the time of the surgery. Surgeon satisfaction survey results were also analyzed as a secondary outcome.

Categorical data was analyzed using the chi-square test. The ordinal data obtained from the surgeon satisfaction surveys was analyzed using the Mann-Whitney U test.

Results

A total of 240 subjects were enrolled in the study from May 2008 until June 2009. There were 123 enrolled into the sharp needle group and 117 enrolled in the blunt needle group. All 2794 gloves used in all 240 cases were tested for glove integrity. A total of 238 surgeon satisfaction surveys were returned, 121 from the sharp needle group and 117 from the blunt needle group for a participation rate of 99%.

There were no instances of crossover between the study groups. Tables 1 and 2 show the breakdown of the glove perforations both by case and by total number of gloves. The overall perforation rate measured by case was 25% and by glove was 3%. There were no statistically significant differences in the rate of glove perforation between the sharp needle group (30 of 123 cases 24%, 35 of 1410 gloves 2%) and blunt needle group (30 of 117 cases 26%, 37 of 1384 gloves 3%) when compared both by measuring by the total number of cases (p=0.82 [RR 1.05, 95% CI 0.68-1.63]) or by measuring by the total number of gloves (p=0.75 [RR 1.08, 95% CI 0.68-1.70]).

Of the 72 total perforations that occurred in 60 cases, 65 were not detected at the conclusion of the case. The primary surgeon had the largest proportion of glove perforations with 28 of 72 (39%) perforations in this group. The surgical technician had 22 of 72 (31%) while the first assistant had 17 of 72 (24%) glove perforations. The glove of the non-dominant hand was perforated 38 times compared to 34 times in the dominant hand. The details of the glove perforations are included in Table 3.

Of the 202 cases reviewed with primary surgeon data cards containing the case length, 22 of the 52 cases (42%) lasting over 60 minutes had observed glove perforations. This is in contrast to only 31 of 150 cases (21%) lasting 60 minutes or less exhibiting glove perforations. This difference is statistically significant (p=0.002 [RR 0.73, 95% CI .057-0.93]).

In the cases lasting over 60 minutes, 9 of 26 cases (35%) in the blunt needle group had observed glove perforations, while 13 of 26 cases (50%) in the sharp needle group had observed glove perforations. This difference is not statistically significant (p=0.4 [RR 1.31, 95% CI 0.81-2.10). In cases lasting 60 minutes or less, there was no difference in the rates of glove perforation between the blunt needle group (17/82, 21%) and the sharp needle group (14/68, 21%). (p=1 [RR 1, 95% CI 0.85-1.18]).

The urgency of the procedures did not affect the glove perforation rates. Overall, 76 of the Caesarean deliveries were categorized as urgent/emergent by the primary surgeon. Of these 76 urgent/emergent cases, 19 of them (25%) had glove perforations while 32 of 126 non-urgent cases (25%) had observed glove perforations (p-value=1 [RR 1.01, 95% CI 0.85-1.19]). Analyzing the urgent/emergent cases by needle type also revealed no differences between the groups. Of the 44 urgent/emergent cases using blunt needles 11 perforations occurred (25%) while there were 8 glove perforations in 32 urgent/emergent

Table 3. ***Characteristics of detected glove perforations.***

	Known	Unknown	Double Glove	No Double Glove	Dominant Hand Puncture	Non-Dominant Hand Puncture	Blood on under glove	Blood on skin	Visible hole in glove
Blunt needles									
Primary	1	15	11	5	9	7	1	1	1
First assist	0	8	6	2	5	3	1	0	0
Second assist	0	2	1	1	0	2	0	0	0
Tech	0	9	3	6	5	4	0	0	0
Total in blunt group	1	34	21	14	19	16	2	1	1
Sharp needles									
Primary	1	11	8	4	6	6	3	2	1
First assist	3	6	3	6	4	5	0	0	0
Second assist	0	3	3	0	0	3	1	0	0
Tech	2	11	8	5	5	8	1	0	0
Total in sharps group	6	31	22	15	15	22	5	2	1
Overall total	7	65	43	29	34	38	7	3	2

cases using sharp needles for a 25% perforation rate (p=1 [RR 1, 95% CI 0.77-1.3]). Likewise, there was no observed difference between blunt and sharp needles in the non-urgent cases with the perforation rate in the blunt group being 13 of 60 (22%) and the rate being 19/66 (29%) in the sharp needle group (p=0.36 [RR 1.1 , 95% CI 0.90-1.35]).

There were no statistically significant differences in the training level of the primary surgeon or the number of glove perforations between the blunt and sharp needle groups when analyzed by the training level of the primary surgeon.

It was noted that in cases where surgeons were double gloved, there were no instances of perforation of both the inner and outer gloves.

Surgeon satisfaction survey data is presented in Table 4. There was no statistically significant difference in primary surgeon training level between the two groups. There were significant differences in all measures of surgeon satisfaction, with surgeons being more satisfied with the sharp needles with respect to ease of tissue penetration, needle integrity, force needed to penetrate tissue and control of bleeding at the tissue entry point. Surgeons preferred the blunt needles over the sharp needles regarding their perception of overall safety of the needles.

In the control gloves that were tested, no perforations were detected in the 144 gloves tested. There were no study related adverse events reported.

Discussion

The results of this study show that there is no significant difference in the number of surgical glove perforations when using blunt versus sharp surgical needles during Caesarean delivery.

Table 4. ***Surgeon satisfaction survey results. Based upon a Likert scale from 1 to 5 with 1 =Very Satisfied, 2= Satisfied, 3=Neither Satisfied nor Dissatisfied, 4=Dissatisfied, 5=Very Dissatisfied. Surgeon training levels range from 1=PGY-1 to 5=Attending. Presented as median and range.***

	Surgeon Training Level	Ease of Tissue Penetration	Needle Integrity	Overall Safety	Force to Penetrate Tissue	Control of Bleeding at Tissue Entry Site
Blunt Needle Group n=118	3 (1-5)	2 (1-5)	1 (1-5)	1 (1-5)	2 (1-5)	1 (1-5)
Sharp Needle Group n=118	3 (1-5)	1 (1-4)	1 (1-5)	2 (1-5)	1 (1-4)	1 (1-3)
p-value	0.357	<0.001	0.01	<0.001	<0.001	0.001

Prior studies have estimated a glove perforation rate of approximately 25% with open abdominal surgery.[2,9] A previous trial assessing glove perforation during Caesarean delivery showed an overall glove perforation rate of 12.3%.[5] Our study showed an overall perforation rate of 25% per case. The total number of perforations per gloves used was 3%, about twice that of expected baseline perforation rate of 1.5%.[10] The higher rate of glove perforation per case seen in our study as compared to prior studies may be explained by the differences in the study design. In the study conducted by Sullivan et al, only the gloves of the primary surgeon and assistant were tested.[5] In our study, we tested the gloves of all persons scrubbed in the case. In fact, the surgical technician had the second most number of perforations in our study.

While surgeons rated both needle types favorably in the satisfaction surveys, sharp needles were clearly preferred over blunt needles.

Not surprisingly, Caesarean delivery procedures lasting greater than 60 minutes were associated with a statistically significant increase in glove perforations for both blunt and sharp needles, but no differences were noted between the two types of needles.

Also of interest is our finding that no perforations included both the inner and outer gloves in surgeons who wore double gloves. This finding is consistent with other prior studies assessing surgical glove integrity during Caesarean delivery.[11]

Strengths of our study include the testing of all gloves used during the procedures, and the inclusion of urgent/emergent cases in addition to non-urgent cases. However, in order to meet the requirements for a consent waiver to be able to include the urgent and emergent cases, we were not able to collect any patient specific protected health information. This is a weakness of the study in that the patient demographics and characteristics could not be analyzed for contributing factors.

Given the high overall glove perforation rate of 25%, and the finding that no double gloved surgeon in either group experienced perforation of both under and over gloves, double gloving for all surgical team members is recommended. Based on the findings of this study, routine adoption of blunt needles for Caesarean delivery is not warranted and needle selection should remain at the discretion of the operating surgeon.

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Fractured OG Tip: A Case Report

George Ranier, MD
WVU School of Medicine, Dept. of Anesthesiology, Morgantown, WV

Kevin Costello, MD
WVU School of Medicine, Dept. of Anesthesiology, Morgantown, WV

Abstract

This case report describes a complication from use of an orogastric tube not previously described in the literature. An OG tube was placed and removed non-traumatically for the anesthetic management for an anterior-posterior cervical spinal fusion. Despite smooth placement and removal, the patient coughed up the tip of the OG tube while in the post anesthesia care unit. Orogastric (OG) and nasogastric (NG) tubes are routinely used in anesthesia as well as many other fields of medicine. OG and NG tubes leading to morbidity are rare; however, this report describes a new potential adverse event that clinicians should be aware of.

Introduction

NG/OG tubes can be made of PVC, polyurethane, or silicone, but are most commonly made of PVC (Salem Sump™) for gastric tubes used in the perioperative setting. PVC gastric tubes are stiffer than their counterparts and are more irritating long term, but this factor does not influence its use in anesthesia as OG tubes are most often removed at the conclusion of the procedure prior to emergence. The OG tube that is most commonly used is the Salem Sump™, which is also the OG tube used in our institution. It has two lumens consisting of a larger diameter lumen (for suction or irrigation) and a smaller diameter lumen. The smaller diameter lumen can serve the purpose of venting to the atmosphere so that the distal suction ports of the OG tube do not adhere to the stomach lining and cause mucosal injury after suctioning of gastric contents. OG and NG tubes are not limited to anesthesia and are used frequently through many areas of medicine and surgery to include treatment of bowel obstruction, routine placement in intubated patients in the ICU, gastric lavage, etc. NG and OG tubes are not commonly associated with morbidity; however, complications such as esophageal rupture, worsened reflux, GI tract irritation, and pulmonary abscess have been reported.[1]

Case Presentation

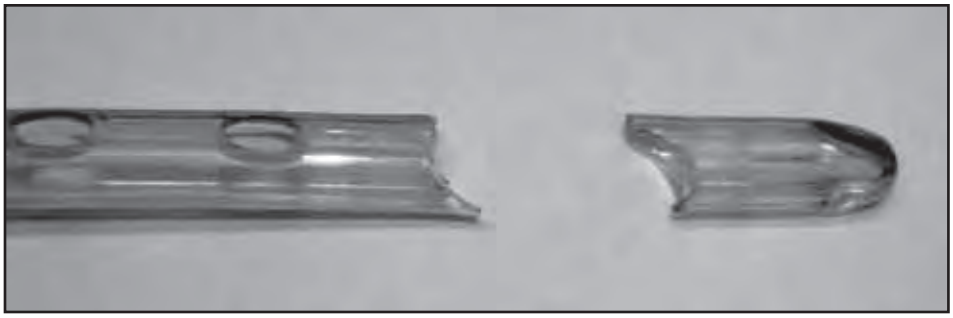
A 50 year old patient was scheduled to undergo an elective anterior-posterior cervical spinal fusion. The patient was appropriately pre-oxygenated in the operating room and then underwent a routine induction and intubation. The OG tube was placed after induction non-traumatically with return of gastric fluid. The surgery and anesthetic were performed without complication, and the OG tube was removed at the end of the case seemingly without incident. The case lasted approximately seven hours. During the case, the patient was never witnessed to cough, buck, or bite down on either the endotracheal tube or OG tube, even upon removal. The patient was transported to the PACU, where shortly after arrival he began to cough. The patient was evaluated and shortly thereafter coughed up a foreign object. Upon further inspection, the foreign object appeared to be the tip of an OG tube. The original OG tube was immediately sought out and found in the trash can of the OR with an exact symmetric match to the tip coughed up by the patient (Fig 1). After the OG tip was expelled from the patient, the patient went on to have an uneventful recovery.

Discussion

The rationale behind using an OG tube in anesthesia is that gastric distension increases after bag mask ventilation. The gas mixture entrained during bag mask ventilation will often contain volatile anesthetics. The presence of gastric distension and volatile agents within the stomach are both thought to increase the incidence of PONV.[2] The use of an OG tube after induction to decrease the gastric distension and to remove volatile anesthetics has been considered a safe and effective non-pharmacologic method of decreasing PONV. Some recent studies have cast doubt as to whether this is actually true;[3] but regardless, many clinicians still place OG tubes in clinical practice.

One of the reasons that OG tubes are still common in clinical practice despite the fact that their use is equivocal in preventing PONV or improving aspiration risk, is that the complication rate is relatively low. However, complications do exist and the clinician should be aware of them. Coiling, kinking, or knotting can occur along any portion of the GI tract including the pharynx and pyriform sinus. When not placed carefully, esophageal perforation can occur. Gastric mucosal injury or necrosis can occur if the OG tube is left on continuous high suction for the duration of the procedure. The presence of an OG tube also weakens the lower esophageal sphincter tone. These complications are not

Figure 1. *Depicting the Fracture OG Tube and Tip*



limited to the GI tract, as inadvertent placement in the respiratory tract can also lead to a similar spectrum of complications from ulceration to perforation. An inadvertent OG tube placed in the respiratory tract that goes unrecognized postoperatively and is left in can lead to serious complications if the tube is used for feeds or medications. These complications include pneumonia, abscess, or pneumonitis. A search of the literature failed to find any reported incidences of a fractured OG tip retained in the patient upon removal. We contacted the manufacturer and were told that the matter would be looked into and they would provide us with a formal response; additionally, the event was reported to the FDA medwatch. We postulate several mechanisms for this occurrence: 1) the tip may have been damaged prior to placement, 2) the tip was damaged upon removal and not recognized as such, or 3) a combination of the two.

Conclusion

This patient was fortunate and did not develop any complications from the incident. The patient could have swallowed the OG tip or even aspirated the OG tip coated in gastric contents. This case report serves as an interesting example of a complication that providers should be made aware of and why the clinician must remain ever vigilant when caring for patients.

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Sunshine Act Update

The Sunshine Act, which was finalized Feb. 4, 2013, and became effective August 1, 2013, requires pharmaceutical manufacturers, device manufacturers and group purchasing organizations to track and report payments, gifts and other "transfers of value" of $10 or more and "ownership and investment interests" they provide to physicians and teaching hospitals.

This accounting exercise stems from a provision in the Affordable Care Act (ACA) that seeks to expose the financial dealings between industry and physicians and discourage conflicts of interest for the latter that might skew education, research, and clinical decision-making. Under the ACA provision, called the Physician Payments Sunshine Act, drug and device makers must report any "transfer of value" of $10 or more made to a physician. Transfers of value under $10 aren't reportable unless they add up to more than $100 in a year. Companies also must disclose whether physicians have any ownership stake in them.

Companies must now keep track of virtually every payment and gift bestowed on each clinician and report them to the Centers for Medicare & Medicaid Services (CMS), who will report them to the world.

The majority of the information contained in the reports will be available on a public, searchable website. Physicians have the right to review their reports and challenge reports that are false, inaccurate or misleading.

Physicians have no legal duty to keep a tally of industry payments and gifts, but they may want to anyway. The Sunshine Act allows them to contest the dollar amounts that drug and device makers submit to CMS, especially if they think the numbers are inflated.

Because some physicians worry that inaccurate information published by CMS could jeopardize the careers of their members, CMS released a free mobile act last month that physicians can use to record cash and in-kind payments from industry.

More information on the Sunshine Act, including the mobile app, is available on the CMS website, www.cms.gov.

CMS posted answers to dozens of questions regarding the Sunshine Act on their website. Below are some of the questions/answers.

Question: What items or materials are considered education materials and are not reportable transfers of value?

Answer: "Education materials and items that directly benefit patients or are intended to be used by or with patients are not reportable transfers of value," CMS writes.

"Additionally, the value of an applicable manufacturer's services to educate patients regarding a covered drug, device, biological, or medical supply are not reportable transfers of value. For example, overhead expense, such as printing and time development of educational materials, which directly benefit patients or are intended for patient use are not reportable transfers of value."

Question: If an applicable manufacturer makes a payment or transfer of value to a group practice rather than a specified physician, how should the applicable manufacturer correctly report the payment or transfer of value? Should the payment be reported in the name of one physician or to all the physicians included in the group practice?

Answer: CMS says, "A payment or other transfer of value provided to a group practice (or multiple covered recipients generally) should be attributed to each individual physician covered recipient who requested the payment, on whose behalf the payment was made, or who are intended to benefit from the payment or other transfer of value. Payments or other transfers of value do not necessarily need to be reported in the name of all members of a practice; rather, applicable manufacturers should divide payments or other transfers of value in a manner that most fairly represents the situation. For example, many payments or other transfers of value may need to be divided evenly, others may need to be divided in a different manner to represent who requested the payment, on whose behalf the payment was made, or who was intended to benefit from the payment or other transfer of value."

Question: Are payments for travel, lodging and meals to speakers and faculty of accredited or certified CME events that meet all three conditions established in the final rule included in the total compensations that are exempt from reporting?

Answer: "Yes. Lodging, travel and meals for speakers of an accredited or certified CME event meeting … will be deemed to be included in the total speaker compensation and, therefore, exempt from reporting under Open Payments," CMS says. "However, travel, lodging and meals and all other natures of payments provided in conjunction with the accredited or certified CME event (with the exception of educational materials included in the tuition fees for an accredited or certified CME program that meets all three exemption conditions, such as handouts, web downloads or printed slides) will need to be reported for physician attendees (who are not speakers)." Moreover, "these payments would need to be reported under the appropriate nature of payment categories, such as food and beverage, travel and lodging, or entertainment, as appropriate. The excluding characteristic for meals is when allocating the cost of the meal among covered recipients in a group setting where the cost of each individual covered recipient's meal is not separately identifiable".

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Customized Solutions for Your Special Concerns—Part I

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

by: Steve Brown, Agency Manager

In the July/August 2013 issue of the *West Virginia Medical Journal* we asked the question "Have you seen your insurance agent lately?" We believe this is an important question because seeing your agent means getting to know your agent and if your agent gets to know you, he/she will know more about your practice and your practice needs. Then when issues or problems arise, the agent will be better able to resolve your concerns.

Combining the fact that we like to know our clients by visiting them in their offices, seeing them at various WVMIC risk management functions and at WVSMA conferences, with our knowledge of how the insurance process works (experience in underwriting, risk management, claims handling, and regulation) allows us to "customize solutions for (your) special concerns."

In the next few paragraphs, we are going to relate some experiences that we have had that confirm why we want to improve our relationship with you and not only get you the best price with the best carrier, but also help you when you have special issues, problems and concerns.

A. Going Bare

We have had at least three experiences with doctors who were practicing without insurance ("going bare"). In all three cases, we have been able to satisfy their coverage needs, as well as provide reasonable pricing, while these physicians developed "credibility" with the marketplace and now are considered standard risks.

In one instance, the doctor had been cancelled for non-payment of premium and just did not respond well to the situation and fixing the payment issue. We assisted the doctor with a special appeal to the carrier by assisting in an evaluation of why the premium payment was not made. The appeal was eventually denied, but with a doctor who had practiced for 20 years and was claims free, we had little difficulty in obtaining coverage and now have this doctor insured at standard rates with terms and conditions that compare to the standard market.

The second case involved a doctor who just got upset with the rising cost of medical professional liability insurance in the 1990's. He felt he was not the risk that justified the high premium and went uninsured (or should I say self-insured as he was assuming the risk). Well it all worked well for this doctor, no claims and several years later with the civil justice reform in place and lower premiums, the risk is now insured, but only after receiving our assistance in promoting his case to the carrier.

The third case involved a doctor with a claims frequency and severity issue. As we assisted this doctor, we determined that the most recent past history was good and that the surplus lines markets should be willing to take a chance on the risk. We developed options for the doctor and have now renewed the coverage once with a lower than standard increase in premium from step 1 to step 2 claims-made.

B. Improving the Cost

In 2011, a cold call was made to a prospect in Martinsburg. During the visit I asked the office manager to let me review whether or not the doctor

was receiving full premium credits of 10% (the maximum at the time) from the Mutual and if not I would help to achieve the full credits. A review indicated the doctor was not receiving the full 10% because the doctor was unaware of the Mutual's premium credit program. With our assistance, the doctor was able to secure most risk management premium credits for next renewal. As important, it was discovered that the doctor employed a part-time physician who was being rated as full-time. We advised the Mutual of this fact and a refund of almost $5,800 was provided. The doctor granted our Agency an Agent-of-Record letter and we are now providing the assistance needed to receive the full premium credits (12%) at each renewal.

In 2012, one of our clients merged offices with another doctor who we did not represent. Both were insured with the Mutual. My client was receiving full premium credits and the other doctor was receiving none. How could this happen?

When I spoke to the second doctor about becoming the agent, I was advised that "no one ever informed" the doctor about these credits until she merged the practice. The doctor granted our Agency an Agent-of-Record letter and currently receives maximum premium credits because of our assistance. The doctor went from 0% credits in 2012 to 12% credits in 2013.

Earlier this year, a doctor called us about becoming his agent. The doctor was an insured of ProAssurance and was being non-renewed. The doctor had already decided to buy tail coverage from ProAssurance, one year of coverage and then another tail from the Mutual; resulting in a combined cost of $31,884. In our consideration of the physician's needs, we requested the Mutual to offer prior acts coverage and subsequently tail after one year. This was offered at a price of approximately $23,740, resulting in a savings of $8,144 for the doctor by choosing our option.

These issues may not be like yours, but they represent challenges we have undertaken and resolved to the benefit of our clients. Look for more ways that we have provided "customized solutions for special concerns" in the future. For more information or to obtain assistance in solving your concerns call Steve Brown, agency manager, at 1-800-257-4747 ext 22 (cell # 304-542-0257). ***Have you seen your insurance agent lately?***

West Virginia Reportable Disease Rule Changes

The West Virginia Reportable Disease Rule (64CSR7) was recently amended with changes effective August 12, 2013. The new rule facilitates the use of the latest information system technology to interface with Electronic Health Records and West Virginia Health Information Network.

Health care providers and laboratories are required by law to notify their local health department when they diagnose one of the diseases or conditions on the list. The local health department must investigate these reportable diseases and outbreaks and implement control measures to prevent further spread.

Table I shows a list of selected reportable diseases and conditions and the required timeframes for reporting. Category I diseases must be reported immediately, triggering immediate public health action to determine the source of infection and protect exposed people. These include: agents of bioterrorism, novel influenza, measles, rubella and outbreaks. Detection of agents of bioterrorism may prompt implementation of control measures like isolation, quarantine and/or antimicrobial prophylaxis or vaccination of close contacts. Recognition of a novel influenza virus could be the first clue to an emerging pandemic influenza. Measles and rubella are now very rare in the United States; the Bureau will urgently notify the Centers for Disease Control and Prevention when a case is identified. Over 200 outbreaks are reported every year in West Virginia, representing the most common Category I condition, including clusters of healthcare-associated infections. Outbreaks are defined as an increase in disease over and above the expected incidence. For definition by condition and more information on outbreaks in West Virginia, click on: http://www.dhhr.wv.gov/oeps/disease/ob/Pages/default.aspx

Category II conditions require prompt action to protect the patient or close contacts. For example, preventive vaccinations may be offered to contacts of hepatitis A or B. Close contacts of patients with meningococcal disease or pertussis may receive antimicrobial prophylaxis. Health departments manage animal bites by a variety of methods. A low-risk domestic dog, cat or ferret can be observed for 10 days and the bite victim reassured if the animal is still well after that time. For high risk bites, local health departments can facilitate testing the animal for rabies at the Bureau for Public Health's State Hygienic Laboratory.

Category III diseases may cause local and national outbreaks. Prompt reporting by providers enables health departments to detect potential outbreaks and to counsel ill persons or the public about possible sources of infection.

Category IV diseases do not require immediate public health action, but the data collected

Table I Required time frame for Reporting of Selected Reportable Diseases to the Local Health Department*

Immediate (Category I)	Twenty-four (24) hours (Category II)	Seventy-two (72) hours (Category III)	One (1) Week (Category IV)
• Anthrax • Botulism • Measles • Novel influenza • Outbreaks • Plague • Rubella • Tularemia • Viral hemorrhagic fever	• Animal bites • Hepatitis A, acute • Hepatitis B, acute • Meningococcal disease, invasive • Mumps • Pertussis • Tuberculosis	• Campylobacteriosis • Cryptosporidiosis • Cyclospora • Giardiasis • Listeriosis • Salmonellosis • Shigellosis • Trichinosis • Vibriosis	• Anaplasmosis • Arbovirus • Babesiosis • Chickenpox • Ehrlichiosis • Influenza-like illness • Legionellosis • Lyme disease • Rocky Mountain spotted fever • Tuberculosis, latent infection

**For a complete list, click on: http://www.dhhr.wv.gov/oeps/disease/Reporting/Pages/default.aspx*

supports improved understanding of the epidemiology of these conditions.

In addition to diseases listed in the table, Category V diseases include sexually transmitted diseases, HIV, AIDS and acute hepatitis C, which are reportable to the West Virginia Bureau for Public Health. Disease Intervention Specialists follow up on sexually transmitted diseases so they can notify partners to be evaluated for treatment, giving priority to HIV and Syphillis.

Providers also assist the local health department in their investigations and with the provision of preventive services to patients and their close contacts. The federal Health Insurance Portability and Accountability Act (HIPAA) privacy rule permits providers to provide protected health information (PHI) to public health authorities for public health purposes authorized by law. The West Virginia Reportable Disease rule also contains strict provisions to protect patient confidentiality. Names of healthcare facilities, restaurants, schools and other venues can only be released if the information is critical to protect public health, and only to the extent required to protect the public.

Local health officers, who investigate reportable diseases and implement control measures, follow the investigation, prevention and control guidelines in the West Virginia Reportable Disease Protocol Manual at www.dide.wv.gov. Every year, the local health officer is required to update the healthcare providers, facilities and laboratories in their jurisdiction about their duty to report under this rule. Expect to hear from your local health department soon.

Parkersburg Physician is First MD to Obtain CMCO Certification!

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

Parkersburg physician Kimberly Stooke, MD, of Mid-Ohio Valley Medical Group Inc., recently became the first physician in West Virginia, and one of only a handful of physicians nationally, to obtain the prestigious Certified Medical Compliance Officer Certification.

Dr. Stooke is a partner with Mid Ohio Valley Medical Group, Inc., where she has practiced since 1997. Early on, she and her partners recognized that the group would benefit from instituting a compliance program, so she took on those responsibilities and became a self-taught compliance officer. She serves as Compliance Specialist for the medical group, comprised of 16 Family Practice Physicians, 3 urologists, and over 150 employees.

The CMCO course is offered in a variety of settings. Registrants may take the course live (the WVSMA hosted a live class last fall), via webinar or a self-paced webinar course. Dr. Stooke chose the self-paced webinar option before taking the written certification exam.

"From the time I accepted the role of compliance officer for our group, I had spent a lot of time educating myself on the basics of developing and implementing a compliance program, said Dr. Stooke. "I researched and considered other certification programs; however, none of them truly fit the needs of our practice. Most of the other courses were focused on hospital based compliance training or home health agency compliance and very little on private medical offices."

The WVSMA congratulates Dr. Stooke on her outstanding achievement. We are pleased that our West Virginia physicians recognize the importance of gaining credentials and certifications. We are also proud that our physicians recognize the importance of certified administrative staff and staff members. We pledge to continue to provide outstanding educational programming for both physicians and staff.

"I was able to take part in the entire CMCO program without having to cancel or move any patient appointments. The fact that much of the training was geared to outpatient medical groups such as ours was truly important to me, and everything taught was applicable to our practice."

Prior to taking this class, Dr. Stooke says she was a self-taught Compliance Officer. She did much research into various areas and felt she did the best she could do without any formal training.

Now that she has completed the CMCO course, she states, "Taking the CMCO class has broadened and deepened my knowledge of the medical compliance field, and, as a result, I feel much more confident in my role as Compliance Officer. I am now much better educated on the recent changes to health care laws and regulations which will help my group stay compliant as the medical community faces many new challenges."

"I consider myself to have two main roles as a CMCO. First—educate my partners and staff in the areas of compliance to reduce errors and liability for our group. Second—effectively handle infractions of the compliance program while working towards preventing those issues from recurring."

"The course was wonderful. The materials were extremely well organized and covered many facets of medical compliance. There was a large volume of information given to us which could have been overwhelming, but the course approached topics in such a way that it all was very manageable, though rigorous, at the same time."

The Certified Medical Compliance Officer (CMCO) credential, which is awarded by the Practice Management Institute, signifies expertise in the implementation and management of a compliance program for medical offices. These compliance experts understand the importance of

Kim Stooke, MD (right) was recognized at the recent WVSMA Healthcare Summit by Compliance Expert, Robert Liles, and Physician Advocate, Barbara Good.

compliance and possess the tactical skills to implement a customized program designed to fit their organization. CMCO-credentialed professionals know how to evaluate and fix problems to keep the facility compliant with current standards.

The CMCO certification program was developed and is taught exclusively by nationally-recognized leading compliance experts, including the first National Health Care Fraud Coordinator at the Department of Justice, Robert W. Liles, JD, MBA, MS, and Health Care Compliance Officer, D.K. Everitt, CMCO, CCO.

The WVSMA, through our partnership with PMI, has credentialed 19 Certified Medical Compliance Officers, which is 10% of the current national total.

Dr. Stooke summed up her experience by stating, "Having an effective compliance program is extremely important for any medical group in today's ever changing medical climate. While there will always be challenges and new situations to arise, I feel much better prepared and equipped to face those issues now having taken the CMCO course. My knowledge base is deeper, and I was taught approaches and methodology to strengthen the compliance program that we already had in place. The benefits of this CMCO course will be very valuable to our practice. I believe that other physicians would also find the course very beneficial for their personal knowledge and risk reduction in their practice."

Book | **CORNER**

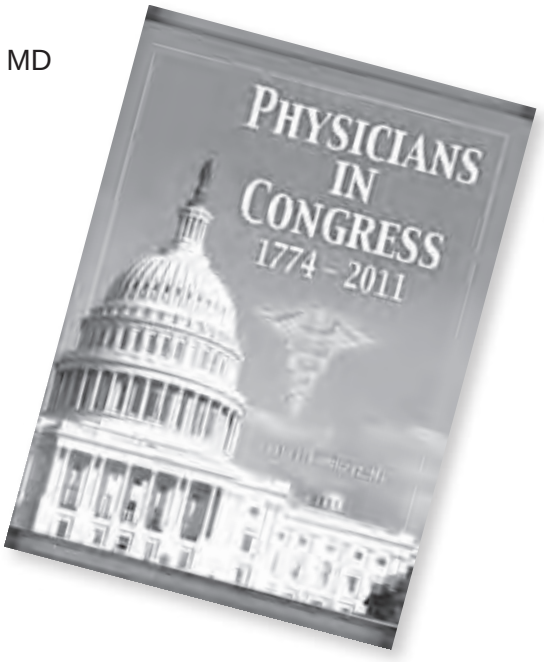
Physicians in Congress

by Rene F. Rodriguez, MD

This book is a unique compilation of all physicians who have served in the U.S. Congress since the Continental Congress in 1774 up to the 111th Congress (2009-2011).

It contains biographical data on all 437 physicians and 312 photographs or portraits of these members of Congress. This was not an easy task. The purpose of the book is to preserve for posterity the names of these medical professionals who took the extra step to serve this great nation and encourage others to follow.

Available at Amazon.com
$45.00



WVU telepsychiatry program expands its rural reach

WVU Healthcare has expanded its telepsychiatry services to 27 clinics in 12 rural West Virginia counties to help provide more mental health treatment to adult, adolescent and child patients. Addiction-related services also include treatment for pregnant mothers.

Many West Virginians suffering from depression or addiction aren't getting the care they need because of a lack of providers and treatment facilities, WVU psychiatrist Patrick J. Marshalek, M.D., of the WVU Department of Behavioral Medicine and Psychiatry, said.

"In Morgantown, we've seen patients who commute from as far away as McDowell County due to scarcity of treatment providers," Dr. Marshalek said. "The state needs expanded addiction services at all levels, including acute inpatient, outpatient and residential. Resources available to those without insurance are lacking even further."

In 12 West Virginia counties – Barbour, Clay, Jackson, Logan, McDowell, Mercer, Mingo, Randolph, Roane, Tucker, Upshur and Wood – a certified addiction counselor or a behavioral health nurse on-site at a mental health facility works with WVU psychiatrists at Chestnut Ridge Center in Morgantown. With a web camera and a secure privacy-compliant computer server, the WVU caregivers provide rural patients with the same quality care they offer in Morgantown without patients having to leave their hometown.

Since the program began in 2009, WVU telepsychiatrists have seen 11,060 patients. Waiting lists for several of the clinics are already in the hundreds.

Second year medical students learn about black lung disease

Second year medical students at the WVU School of Medicine participated in the Black Lung Rural Immersion in August. The students visited Dr. Randy Forehand's rural clinic in McDowell County, then toured a working coal mine in Raleigh County. The program was developed, coordinated and funded by the WVU Institute for Community and Rural Health, Southern WV AHEC and WVU Family Medicine.

L-R Nathaniel Linger – Buckhannon; Virginia Horne – Purcellville, Va; and William Johansen -Charleston

WVU Healthcare uses television to help patients

This summer marked the 700th episode of "Doctors On Call" (DoC), a statewide program on West Virginia Public Television that features WVU Healthcare physicians and other health professionals.

When "Doctors On Call" debuted on Jan. 14, 1993, it was instantly popular with viewers throughout the state. But no one would have predicted that the live, medical call-in show would still be on the air more than 20 years later, as few things last that long on television. Today, the phone lines still ring off the hook, and doctors donning makeup sit under the set's bright lights to answer as many viewers' questions they can fit into a half-hour show.

"Doctors On Call," a joint production of West Virginia Public Broadcasting, WVU Healthcare and WVU Health Sciences, began as a way to reach people in the far corners of the state with up-to-date medical information.

"Doctors On Call" wasn't the educational institutions' first foray into television. Since 1990, WVU doctors have been sharing their wisdom on the WVU Health Report, first on WCHS-TV in Charleston, then a few years later on evening news broadcasts throughout the state. The health reports now appear on West Virginia Media stations in Clarksburg (WBOY-TV), Charleston-Huntington (WOWK-TV), Beckley (WVNS-TV), and Wheeling (WTRF).

Rolly Sullivan, M.D., an addiction specialist for WVU Healthcare, hosts the WVU Health Reports and "Doctors On Call." Other hosts for Doctors On Call are pediatric cardiologist John Phillips, M.D.; pediatric infectious disease specialist Kathy Moffett, M.D.; orthopaedic surgeon Joe Prudhomme, M.D.; and gynecologist Mahreen Hashmi, M.D.

"Doctors On Call" airs at 8 p.m. on Thursday nights. All shows are posted to WVU Healthcare's YouTube channel: www.YouTube.com/WVUHealthcare.

Viewers of DoC can learn about upcoming topics and provide feedback and requests on the program's Facebook page: www.facebook.com/DoctorsOnCallWVU.

Marshall Research Project Receives $293K grant from NIH

Dr. Jingwei Xie, a senior scientist at the Marshall Institute for Interdisciplinary Research (MIIR), has been awarded a $293,000 grant from the National Institutes of Health to lead a project to develop a technique that may improve surgical repair of rotator cuff injuries.

The project will combine the expertise of two research groups at Marshall University. Xie, who is an expert in bone growth and development, and his team at MIIR will be working with Dr. Franklin D. Shuler, associate professor and vice chair of research in the Department of Orthopaedic Surgery at the university's Joan C. Edwards School of Medicine.

According to Xie, rotator cuff injuries are among the most common conditions affecting the shoulder and can occur from falls or repetitive motions like throwing a baseball. Rotator cuff repair is also one of the most common orthopedic surgeries, with approximately 300,000 procedures performed annually in the United States alone.

He explains that rotator cuff surgery done with current methods has a failure rate that ranges from 20-90 percent, due in large part to the manner in which the tendons are reattached to the bone. For this project, his team will combine principles of engineering and biomedicine to construct a new type of biological device that will better mimic an uninjured tendon-to-bone attachment, and ultimately result in improved healing.

The grant is from NIH's National Institute of Arthritis and Musculoskeletal and Skin Diseases.

New Vice Dean for Clinical and Translational Sciences Named at Marshall

Uma Sundaram, MD, a physician researcher with decades of experience in translational medicine, has been named Director of the Edwards Comprehensive Cancer Center (ECCC) at Cabell Huntington Hospital and Vice Dean for Clinical and Translational Sciences at the Marshall University Joan C. Edwards School of Medicine (JCESOM).

Dr. Sundaram is a fellowship-trained gastroenterologist and a leading translational investigator who has received significant grant funding over the years for research related to gastroenterology and cancers specific to gastroenterology.

In his research role at the JCESOM and ECCC, Dr. Sundaram will continue his work on intestinal absorption of nutrients in inflammatory bowel disease and colon cancer, which is funded with grants awarded by the National Institutes of Health (NIH). Most recently, Dr. Sundaram served as director of the West Virginia Clinical and Translational Science Institute (WVCTSI) and assistant vice president of the West Virginia University Health Sciences Center. At the WVCTSI, he was the principal investigator and program director for the $19.6 million NIH grant, the largest NIH grant to West Virginia to date. He also was a professor of medicine, microbiology, immunology and cell biology at West Virginia University School of Medicine.

JCESOM Students Publish Book of Creative Works

Aenigma Medicorum," a literary and art review recently published by medical students at the Marshall University Joan C. Edwards School of Medicine, features poetry, photography, musical selections and short essays about life as seen through the eyes of medical students and physicians.

The idea germinated with the student members of the school's Multicultural Affairs Committee which seeks to advance institutional diversity initiatives.

The book's executive editor, Matthew Q. Christiansen, M.D., a 2013 graduate of the JCESOM and first-year resident in the Department of Family Medicine, says the publication is an attempt to strengthen the medical school community by reaffirming commitment to the human experience and clinical excellence.

"The name 'Aenigma Medicorum' translates roughly to 'the puzzle of doctors' and is a reference to the intangible aspects of medicine that are so important to a successful medical practice," Christiansen said. "It is an acknowledgment that, although we may be very good at treating disease, we are still learning and perfecting our practice. Each patient teaches us and makes us a better clinician."

Submissions are made in the fall, reviewed by a student advisory board and selected for publication after assistance from faculty advisers.

WVSOM named a Great College to Work For

The West Virginia School of Osteopathic Medicine (WVSOM) is once again being recognized for its commitment to providing one of the top places to work in West Virginia and the country.

For the third straight year, The Chronicle of Higher Education has listed WVSOM as one of the best colleges to work for. The results, released Monday in The Chronicle's annual report on academic workplaces, are based on a survey of more than 300 colleges and universities.

An independent survey of employees was performed at participating institutions with WVSOM earning high marks for its performance in five workplace categories.

WVSOM President Michael Adelman, D.O., D.P.M., J.D., credits the commitment of faculty and staff to creating a quality work environment.

"This recognition is a tribute to the many people in our organization who are dedicated to excellence and who have worked hard to build a collaborative community that fosters success," Adelman said. "Every day I have the pleasure of working with people who are invested in their work and in creating positive outcomes for our medical students and for the state of West Virginia."

The institution is guided by the belief that when employees are recognized for their hard work and achievement, it provides an environment for employees to succeed.

Leslie Bicksler, WVSOM associate vice president of human resources, said the recognition is a testament to the value and contribution of each employee.

"As the chief human resources officer I appreciate the opportunity to come to work each day in a supportive and collegial work environment, which also provides employees with the resources and tools to do their jobs well," she said.

WVSOM was recognized for:

- *Professional/career-development programs*
- *Teaching environment*
- *Compensation and benefits*
- *Facilities, workspaces and security*
- *Respect and appreciation*

The Chronicle is one of the nation's most important sources of news about colleges and universities. Editor Liz McMillen said this survey continues to showcase the excellence among colleges and universities.

"The institutions that the Great Colleges program recognizes provide innovative educational experiences while also offering their employees outstanding workplace experiences," she said.

The survey results are based on a two-part assessment process: an institutional audit that captured demographics and workplace policies from each institution, and a survey administered to faculty, administrators and professional support staff. The primary factor in deciding whether an institution received recognition was employee feedback.

2013 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 August 19, 2013:

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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

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Please direct all membership inquiries to: **Mona Thevenin, WVSMA Membership Director at 304.925.0342, ext. 16 or mona@wvsma.org.**

Obituaries

The WVSMA remembers our esteemed colleagues...

Thomas Samuel Clark, MD

Dr. Thomas Samuel Clark of Delray Beach, Fla., died July 24, 2013. Dr. Clark was born December 18, 1941, in Welch, WV. He graduated from West Virginia University in 1967 and the WVU School of Medicine in 1975. He spent the majority of his life residing in Morgantown, where he served as a family practitioner and as the medical director of Mylan Laboratories, Inc. He was active in his community and served on numerous boards, including West Virginia University, WVU Hospital System and Monongalia General Hospital.

Dr. Clark is survived by his wife of 46 years, Jean Clonch Clark of Bruceton Mills; two sons, Stuart Clark and his wife, Stacey Clark, of Nashville, Tenn., and Charles Thomas Clark and his wife, Dorothea Jenkins Clark, of Washington, D.C.; and four beloved grandchildren, Elizabeth, Henry, Claiborne and Charles Clark.

His ashes were spread at sea, per his desire. In lieu of flowers, please consider sending memorial contributions to the West Virginia University Foundation in support of the White Coat Ceremony, WVU School of Medicine, 1 Waterfront Place, P.O. Box 1650, Morgantown, WV 26507.

Seyed Hadisadegh, MD

A tragic accident on June 13, 2013 took the life of retired surgeon, Dr. Hossein Hadisadegh, born Nov. 20, 1939.

Dr. Hossein graduated from Teheran University. He had his residency training of Cardiovascular Surgery at University of Tennessee Hospitals; and Thoracic Surgery at Regional Medicine Center at Memphis; and General Surgery Millard Fillmore in Buffalo. He and Moloud settled in West Virginia in 1975. He worked the majority of his career at Cabell Huntington Hospital and St. Mary's Medical Center. Just before retiring, he was an assistant professor at Marshall University. Dr. Hadi retired several years ago from St. Mary's Medical Center, where he specialized in treating people with cardiovascular disease.

Dr. Hadi leaves behind his wife of 47 years, Moloud; his son, Darius; brothers, sisters, many nieces, nephews and very dear friends. Email condolences may be expressed to the family at www.ferrell-chambersfuneralhome.com.

Michael Lewis, MD

Michael Justin Lewis was welcomed into God's loving embrace on August 2, 2013.

Left to celebrate his life well-lived are his beloved wife and love of his life, Mino (Rafee) Lewis; daughters, Beth Minear (Bill) and Tana Stanley (JD); grandchildren, Billy and David Minear, Trent and Lindsey Stanley and Janie Beth and Annmarie Uhl; maternal uncle, Nelson Lee Cantley; brother and sisters-in-law of the Rafee family, Mohammed, Azar, Fatema, Fareshedeh, Fereshteh and Fariba; his girls' mother, Deanna Lewis; his loving caregivers, Tasha Kimble, Sarah Corbin and Betty Young; and supportive friends to the end, Mohamed and Giti Shakiba and Thom Stevens.

Michael was born April 10, 1943, in Point Pleasant, N.J., to the late June (Cantley) and Jacob Seyfried. He was raised in Rock Creek, WV, Raleigh County.

Michael earned both bachelor and master's degrees in chemical engineering from West Virginia Tech and a Ph.D. in chemical engineering from Virginia Tech in 1968. In 1971, he enrolled in WVU Medical School, and obtained his medical degree in three years. He opened his family practice in St. Marys in 1975, where he served his rural, riverside community for 10 years.

Dr. Lewis returned to WVU to become the second Chair of the Department of Family Medicine. He then became vice chancellor of Health Sciences for WVU and later served the state as vice chancellor for the Higher Education Policy Commission. Michael served the American Academy of Family Practitioners at a national level. He served as AAFP president from 1992 to 1993 and was honored as WV AAFP Family Doctor of the Year in 2002.

In January 2011 Dr. Lewis accepted the appointment as cabinet secretary for the Department of Health and Human Resources, holding that position until his retirement in June 2012.

Those who wish to honor his memory may make a donation in his name to West Virginia Health Right, the West Virginia free clinic, where he volunteered his time in seeing patients: 1520 Washington St. E., Charleston, 25311.

Condolences may be sent to the family at www.barlowbonsall.com.

Philip M. Rubin, MD

Philip M. Rubin, MD of Charleston, passed away peacefully on Thursday, June 27, 2013, at St. Francis Hospital.

Born June 11, 1932, in Huntington, WV he was the son of the late Abraham and Ann Rubin.

Phil attended Charleston High School, WVU, and received his medical degree from the Medical College of Virginia in Richmond, VA.

Beginning private practice in 1962, Dr. Rubin delivered babies, took care of children and adults and made frequent house calls to elderly patients. In later years, he limited his practice to adult medicine and geriatrics. He was a Board Certified Family Physician at CAMC and in private practice until 2011.

Phil is survived by his wife of 46 years, Linda; his son, Mark A. Rubin, MD of Fort Lauderdale, FL; daughter and son-in-law Jodi and Richard Katz of Charleston.

Dr. Rubin was a member of the AMA, the WVSMA and the Kanawha Medical Society.

In lieu of flowers, contributions can be made to Temple B'Nai Israel or B'nai Jacob Synagogue.

John Mark Snyder, DO

Dr. John Mark Snyder, 56, of Turtle Creek, passed away peacefully on the evening of Saturday, July 27, 2013.

A former coal miner, Dr. Snyder was a graduate of Gary High School, Bluefield State College and the West Virginia School of Osteopathic Medicine. Dr. Snyder proudly made his home and practiced medicine in Madison for the past 25 years.

He was preceded in death by his father, John William Snyder, and mother Sonia "Madelyn" Snyder of Gary.

He is survived by his loving wife of 27 years, Gail; his son, Travis; daughter, Lauren; son, William; and granddaughter, Madilyn. He is also survived by his sister, Beverly O'Brien and her husband, John O'Brien, of Gary; brother, Chad Snyder of Bent Mountain, Va.; along with numerous nieces and nephews.

The family asks that, in lieu of flowers, donations be made to the Scott High School Band Boosters.

You may express your condolences to the family at www.handleyfh.com.

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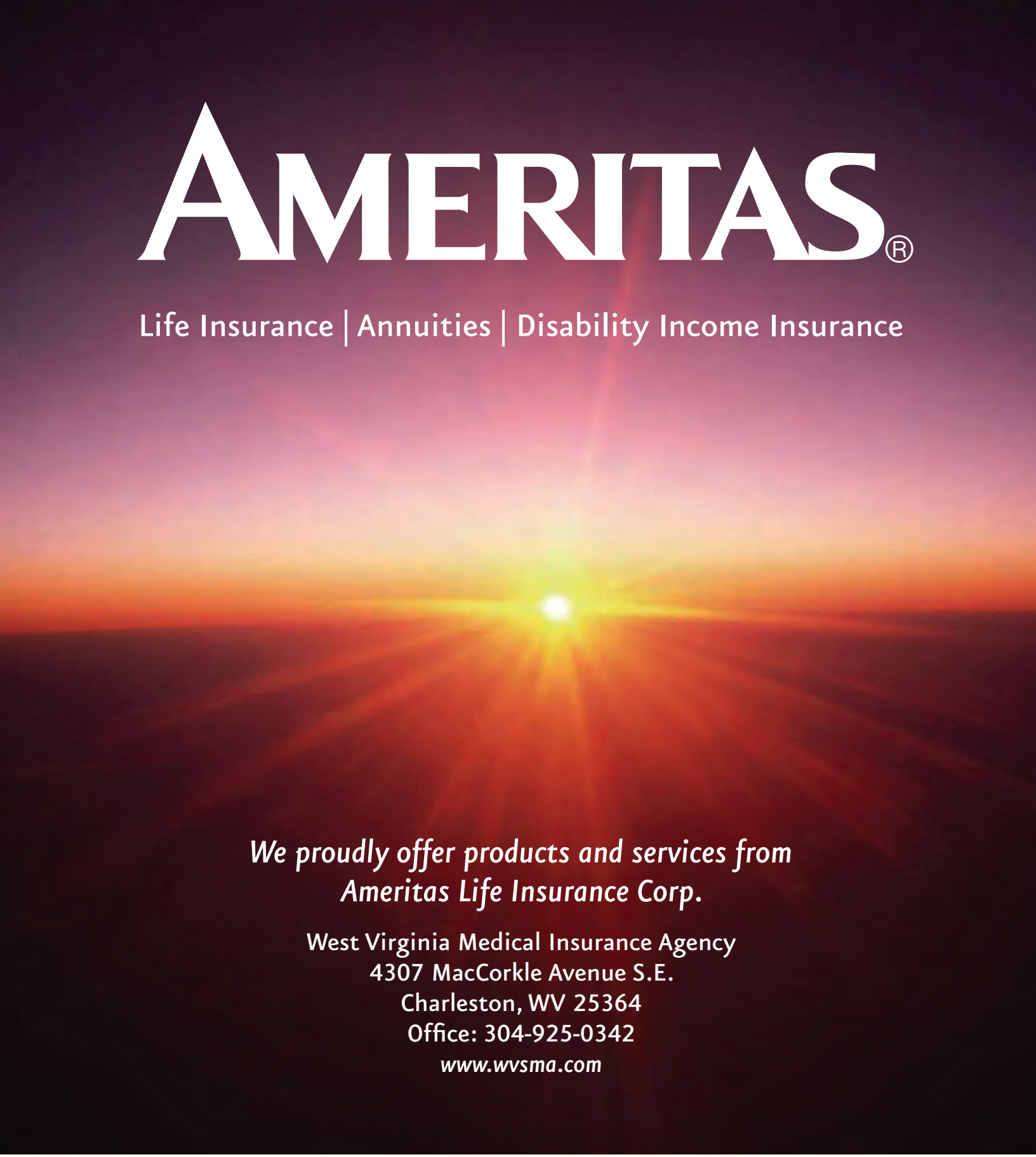

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