Dear colleagues:

After an unseasonably cold winter this year, I suspect you are as happy as I am that spring is upon us. It’s the time of the year when earth rejuvenates itself and Mother Nature blooms. We as individual human beings should take the heed and engage in self-rejuvenation through better eating habits, increased exercise and enhanced optimism. In this regard, I am pleased to report that in January, a new 18-member board of directors was appointed for Shands Jacksonville. Now Shands Jacksonville and Shands at the University of Florida independently operate as closely collaborating “sister” entities with parallel roles, each with its own board and a direct relationship to UF leadership. Their shared mission focuses on the UF Academic Health Center’s goals for patients, students and research programs. Please see more on this important development in the last page of the newsletter.

On the patient care front, we have a Focus topic by Dr. Naeem Latif of the Division of Hematology and Medical Oncology who discusses the head and neck cancers and describes the multidisciplinary team at the UF & Shands that specializes in managing these diseases.

I am especially pleased to announce the appointment of Dr. James Scolapio as the new Chief for the Division of Gastroenterology. Dr. Scolapio is an internationally recognized leader who is entrusted with expanding the Gastroenterology services we offer to the community.

As always, if you have any suggestions on how to improve our services please feel free to contact me.

Arshag D. Mooradian, M.D.
Professor of Medicine
Chairman, Department of Medicine
Head and Neck Cancer

Head and neck cancers encompass a diverse group of tumors that frequently are aggressive in their biologic behavior. In 2009, approximately 35,720 men and women (25,240 men and 10,480 women) in the United States will be diagnosed with cancer of the oral cavity and pharynx, and 7,600 will succumb to these diseases. Further, an estimated 12,290 men and women in the United States will be diagnosed with laryngeal cancer, and 3,660 will die from this malignancy. Most patients with head and neck cancer have metastatic disease at the time of diagnosis (regional nodal involvement in 43% and distant metastasis in 10%) and this is due to delay in seeking medical attention and diagnosis.

EPIDEMIOLOGY

Gender: The incidence by gender varies with anatomic location and has been changing as the number of female smokers has increased. The male-female ratio is currently 3:1 for oral cavity and pharyngeal cancers.

Age: The incidence of head and neck cancer increases with age, especially after 50 years of age. There are more women and fewer smokers in the younger patient group and more likely to have HPV positive cancer.

Race: The incidence of laryngeal cancer is higher in African-Americans relative to the white, Asian, and Hispanic populations. Additionally, in African-Americans, head and neck cancer is associated with lower overall survival, 56% in whites and 34% in African-Americans.

Geography: There is a wide variation in the incidence of head and neck cancer among different geographic regions. The risk of laryngeal cancer, for example, is two to six times higher in Bombay, India, than in Scandinavia. The higher incidence of the disease in Asia is thought to reflect the prevalence of risk factors, such as betel nut chewing and use of smokeless tobacco. In the United States, the high incidence among urban males is thought to reflect exposure to tobacco and alcohol. Among rural women, there is an increased risk of oral cancer related to the use of smokeless tobacco (snuff).

Nasopharyngeal carcinoma is another head and neck tumor with a distinct ethnic predilection. Endemic areas include southern China, northern Africa, and regions of the far Northern Hemisphere—areas in which the diet of inhabitants includes large quantities of salted meat and fish. Cancer of the nasopharynx in these geographic areas also has been associated with Epstein-Barr virus (EBV) infection.

ETIOLOGY AND RISK FACTORS

Tobacco: The incidence of head and neck tumors correlates most closely with the use of tobacco. Head and neck tumors occur six times more often among cigarette smokers than nonsmokers. Use of smokeless tobacco also is associated with an increased incidence of head and neck cancer, especially in the oral cavity. Smokeless tobacco users frequently develop premalignant lesions, such as oral leukoplakia, at the site where the tobacco quid rests against the mucosa. Over time, these lesions may progress to invasive carcinomas. The use of snuff has been associated with an increase in cancers of the gum and oral mucosa.

Alcohol: Alcohol consumption, by itself, is a risk factor for the development of pharyngeal and laryngeal tumors, although it is a less potent carcinogen than is tobacco. For individuals who use tobacco and alcohol, these risk factors appear to be synergistic and result in a multiplicative increase in risk.

UV light exposure: Exposure to UV light is a risk factor for the development of cancer of the lips. At least 33% of patients with lip cancer have outdoor occupations.

Occupational exposures: A small group of head and neck cancers may be attributable to occupational exposures. Nasal cancer has been associated with wood dust exposure, and squamous cell cancer of the maxillary sinus, has been linked to nickel exposure.

Radiation exposure: Exposure to radiation is clearly an important risk factor for thyroid cancer and has been associated with cancer of the salivary glands.

Viruses: There is a strong link between EBV exposure and
the development of nasopharyngeal cancer. The potential etiologic role of human papillomavirus (HPV) in oropharyngeal cancer is supported by a growing body of evidence. A recent case-control study of 100 patients with squamous cancer of the oropharynx documented that HPV DNA, type 16, was found in 72% of tumor specimens.

Diet: Epidemiological studies suggest that dietary intake of vitamin A, β-carotene, and α-tocopherol may reduce the risk of developing head and neck cancer.

SCREENING AND DIAGNOSIS
Since many patients with head and neck cancer are unlikely to see a health-care provider, the means by which patient screening would be achieved remains a fundamental problem. The need for expeditious diagnosis of head and neck cancer and referral to a multidisciplinary head and neck cancer center cannot be overemphasized, as early diagnosis can lead to a reduction in mortality. Risk factors as outlined previously, including a history of tobacco and alcohol use and environmental exposures, should be reviewed. Any adult patient with symptoms referable to the upper aerodigestive tract that have lasted longer than 2 weeks or with an asymptomatic neck mass should undergo a thorough examination with a high index of suspicion for carcinoma.

Physical examination: Due to the frequent occurrence of multiple primary tumors in patients with a head and neck tumor, careful evaluation of the entire upper aerodigestive tract is necessary at the time of diagnosis. Laryngoscopy is used to examine the nasopharynx, hypopharynx, and larynx. Nasopharyngoscopes permit a thorough inspection of the upper aerodigestive tract in the office setting. Approximately 5% of patients with head and neck cancer have a synchronous primary squamous cell cancer of the head and neck, esophagus, or lungs. Examination with the patient under anesthesia with endoscopy (which may include direct laryngoscopy, esophagoscopy, and bronchoscopy) and directed biopsy should be performed in all patients with an occult primary squamous cell cancer and in many patients with a known head and neck primary.

Diagnostic imaging: Posteroanterior and lateral chest x-rays should be obtained in all adult patients to eliminate the possibility of occult lung metastasis or a second primary. The CT scan is probably the single most informative test in the assessment of a head and neck tumor. Relatively greater sensitivity of MRI in relation to CT is offset by its decreased specificity. However, Gadolinium-enhanced MRI is probably superior to CT for imaging tumors of the nasopharynx and oropharynx.

PET scan has been evaluated in both primary and recurrent squamous cell carcinomas of the head and neck. In head and neck cancer, FDG imaging has been useful in detecting clinically occult recurrences.

BIOPSY
Fine-needle aspiration (FNA): is a useful diagnostic modality. FNA has an associated false-negative rate as low as 7%. The diagnostic accuracy depends on the physician's skill and the cytopathologist's experience.

Core biopsy: should not be performed on a neck mass, with the rare exception of a proven lymphoma.

Open biopsy: should be performed only when a diagnosis has not been made after extensive clinical evaluation and FNA is nondiagnostic.

PATHOLOGY
Squamous cell carcinoma: More than 90% of all head and neck cancers are squamous cell carcinomas. There are three histologic grades based on the amount of keratinization. Over 50% of head and neck squamous cell carcinomas have been found to harbor a mutation of the TP53 gene and linked to diminished survival. HPV, which causes inactivation of TP53 via elaboration of E6 and E7 oncogenes, has been identified in 35% to 75% of oropharyngeal cancers.

Other tumor types: Other less common head and neck cancers include mucoepidermoid carcinoma, adenoid cystic carcinoma, and adenocarcinoma, all of which may arise in the salivary glands. Head and neck cancers with neuroendocrine features include small-cell undifferentiated cancer andesthesioneuroblastoma (olfactory neuroblastoma). Both Hodgkin lymphoma and non-Hodgkin lymphoma may also be diagnosed as head and neck tumors, often involving the lymph nodes of the neck or Waldeyer's ring.

TREATMENT APPROACHES
Surgical principles: Complete resection is necessary for improved outcome. Reconstruction is complex after resection of head and neck tumors, as the surgery may have an impact on appearance, speech, and swallowing. Decisions regarding the extent of resection should be made by experienced surgeons.
Focus continued from Page 3

Additional information was not provided in the image.
finally moonlighting must now be included in the 80 hour work week.

Duty hours are not the only changes to the Program Requirements. Alertness management has now become an emphasis. Faculty members and residents must learn to recognize the signs of fatigue and sleep deprivation, and sponsoring institutions must provide adequate sleep facilities. Communication and transitions of care are discussed as well, stating that institutions and programs must ensure and monitor effective, structured hand-over processes to facilitate both continuity of care and patient safety. Finally, the privilege of progressive responsibility and levels of supervision are more clearly defined in the new standards.

The new ACGME standards will provide challenges to residency and fellowship training programs across the country. This program will also have hurdles to overcome to meet the upcoming new requirements. However, thanks to strong leadership both past and present, this program will not need major revisions to meet these new demands. With tightly regulated duty hours, an organized night float system, and established non-teaching hospitalist group, most of these ACGME obligations are already met. In addition, coordination with division directors in the CCU and MICU have facilitated required changes to meet the demands of the 2003 and 2011 standards. In fact, a task force comprised of members of the House Staff Council, MICU, Emergency Medicine, and GME have recently met to address the remaining duty hours changes. Finally, and most importantly, it’s the dedicated faculty, fellows, and house staff that will ultimately meet the challenges of an evolving educational environment. For that we in the GME office thank you for your support and look forward to the upcoming academic year.

A CLINICAL CASE

John-Paul Pham, MD, Fred Edwards, MD, Alan Miller, MD, Department of Medicine, Department of Surgery, and Cardiovascular Center, University of Florida College of Medicine, Jacksonville, FL.

Anomalous Origin of Right Coronary Artery from the Left Aortic Cusp Causing Episodes of Angina and Syncope

INTRODUCTION
The right coronary artery (RCA) abnormally originating from the left coronary cusp is a rare congenital anomaly.

We report a case that was difficult to diagnose due to the fact that the patient’s presentation resembled more commonly seen cardiac conditions. The patient was previously diagnosed with syncope, angina, and dyspnea on exertion and was treated without improvement.

CASE REPORT
A 65-year-old male with a history of angina and syncopal episodes presented with 9/10, sharp, non-radiating, left-sided chest pain associated with shortness of breath, nausea, and diaphoresis. Additionally, he has had more frequent episodes of syncope.

Evaluation of his syncopal episodes was non-diagnostic.

He ruled out for acute coronary syndrome with negative cardiac enzymes and there were no remarkable EKG findings. He was found to have an anomalous RCA on cardiac CTA. The vessel originated in the proximal ascending aorta coursing anteriorly between the aorta and pulmonary artery. Cardiac catheterization revealed the
anomalous RCA originating from the left cusp but no obstructive coronary disease. Ejection fraction was 55% with normal wall motion and function.

The patient subsequently underwent coronary artery bypass grafting to the RCA. The anomalous RCA originated from the left cusp posteriorly and coursed left down and anteriorly between the pulmonary artery and proximal aorta. Upon dissection, the proximal portion of the RCA was fused with the aortic wall. It is possible that this represented an intramural course of the coronary vessel. As the RCA continued to course down anteriorly, it bifurcated with one branch running down the AV groove and the other branch running perpendicularly across the right ventricle which is an extremely rare finding. The right internal mammary artery was anastomosed to the anomalous RCA.

**DISCUSSION**

Anomalous origin of the RCA is known to produce both angina and syncope. Several mechanisms of myocardial ischemia have been postulated. First, the ostium of the anomalous coronary artery is slit-like because of the acute take-off from the aortic wall. Second, the first segment of the anomalous coronary artery runs between the aorta and the pulmonary trunk and has an intramural course within the aortic tunica media. Thus, compression and milking of the anomalous coronary artery by the expansion of both large vessels and the flap-like closure of the orifice might occur during physical effort. Ischemia of the SA node which is supplied by the RCA is probably the cause of our patient's syncopal episodes.

Surgical repair is the treatment for resolution of symptoms. After surgery, our patient was able to ambulate without any syncopal or anginal episodes.

**CONCLUSION**

In patients who present with angina, our usual diagnostic focus is to rule out myocardial ischemia but in patients with angina and syncope, coronary arteries of anomalous origin with a malignant course should be considered. The most accurate and diagnostic tool of choice is cardiac CTA.

**REFERENCES**

Internal Medicine Update
This program is designed to provide general internists and subspecialists, family medicine physicians, physician assistants, nurse practitioners and allied health care professionals with a state-of-the-art update in internal medicine.

When: April 15-17, 2011
Where: Sawgrass Marriott, Ponte Vedra Beach

For more information, please call 904-244-3158, email cme-mail@ufl.edu or visit http://imu.cme.ufl.edu

Research Day 2011
Research Day 2011 will be held on Thursday, May 12, 2011 from 9am-2pm in the Learning Resource Center. Research Day 2011 will include selected platform presentations, poster viewing, guest speakers and awards presentations.

Internal Medicine Resident Receives Outstanding Resident Teacher Award
The annual University of Florida College of Medicine Medical Education Week, “Celebrating Excellence in Medical Education”, honored the education programs and nurtured teaching scholarship by featuring educational sessions and workshops throughout the week-long event.

Muhammad Salahuddin, M.D., Internal Medicine Residency Program, was one of several University of Florida College of Medicine - Jacksonville residents to the Outstanding Resident Teach Award.

Congratulations to Dr. Salahuddin for this honor.
Shands Jacksonville Announces New Board of Directors

A new 18-member board of directors was appointed for Shands Jacksonville in January. The appointment comes in the wake of a vote last fall that restructured governance of two components of the Shands family of hospitals — Shands Jacksonville and Shands at the University of Florida. They now independently operate as closely collaborating “sister” entities with parallel roles, each with its own board and a direct relationship to UF leadership. Their shared mission focuses on the UF Academic Health Center’s goals for patients, students and research programs.

“Our new board of directors brings together University of Florida and Shands Jacksonville administrators and physicians as well as strong community leaders who support the hospital’s mission,” said Jim Burkhart, MHA, FACHE, president and CEO of Shands Jacksonville, and a member of the board. “With this new board, we are well-positioned to form strategic alliances and make decisions more quickly to ensure financial success of the hospital and further our reach in the community.”

David Guzick, MD, PhD, senior vice president for health affairs at UF and president of the UF&Shands Health System, chairs both the Shands Jacksonville and the Shands Teaching Hospital and Clinics boards.

Mr. Burkhart and Dr. Guzick are seated on the Shands Jacksonville board along with Robert Nuss, MD, dean of the UF College of Medicine-Jacksonville regional campus and associate vice president for health affairs. The remaining members include five UF faculty physicians and a mix of civic, business and health-care leaders with strong ties to the Jacksonville community.

“With greater participation in the governance of the organization, UF faculty are able to work together with community leaders and help set the strategic direction for Shands Jacksonville,” said Dr. Nuss.

Shands Jacksonville embarked on a remarkable turnaround over the past decade. Thanks to substantial investment by Shands at UF, the city of Jacksonville and the University of Florida, and to excellent management by hospital and university leaders and the Shands Jacksonville board of directors, the picture steadily improved, year-by-year.

“The hospital is now operating efficiently and is able to invest in the academic mission of the faculty at the UF College of Medicine-Jacksonville and in the capital investments needed to support a higher level of patient care with appropriate facilities and technologies,” said Dr. Guzick. “The University of Florida faculty practice plan has become, by far, the largest group practice in the region, providing a full range of health services to the broad community of Jacksonville.”