EUS-FNA Effective For Staging Lung Cancer

For patients with non-small cell lung cancer (NSCLC), a recent UAB study showed transesophageal endoscopic ultrasound-guided fine-needle aspiration (EUS-FNA) added **positive predictive value** in determining the presence of cancer in posterior mediastinal lymph nodes and was a more effective staging tool than 18F-fluorodeoxyglucose positron emission tomography (FDG-PET) or chest tomography (CT).

According to study lead author Mohamad Eloubeidi, MD, MHS, in the *Annals of Thoracic Surgery* (2005;79:263-268), EUS-FNA tissue confirmation was 97% accurate and prevented surgical interventions for further staging in 57% of patients.

“Selecting the best treatment for patients with non-small cell lung cancer depends on accurately determining the stage of disease. Unfortunately, up to 40% of patients with lung cancer have mediastinal node involvement at diagno-

s, which precludes surgical therapy,” says Dr. Eloubeidi, who directs the UAB Endoscopic Ultrasound program. “These patients are best served by initial chemoradiation therapy.

“Many patients with suspected non-small cell lung cancer are smokers, so large mediastinal nodes may indicate infection or causes other than cancer,” he says. “Minimally invasive EUS-FNA makes it **easier and more cost effective** for us to evaluate and properly stage patients without surgical intervention.”

Study coauthor and UAB Chief of Thoracic Surgery Robert Cerfolio, MD, says, “EUS-FNA is a highly accurate, minimally invasive tool that has revolutionized how we stage patients with non-small cell lung cancer prior to surgical resection.” He has referred more than 700 patients for EUS-FNA. UAB cytopathologists subsequently make the diagnosis.

Unlike CT scans that rely primarily on node size to indicate possible cancer, PET scans rely on metabolic activity. While PET scans are superior to CT, neither provides tissue for definitive analysis.
UAB SYNOPSIS

anterior mediastinum and adjacent lymph nodes. A new endoscope under development called an endobronchial ultrasound may replace mediastinoscopy for evaluation of anterior lymph nodes. “EUS-FNA complements other staging techniques. A safe, minimally invasive, accurate methodology, it provides tissue samples from suspicious posterior mediastinal lymph nodes detected by CT or PET scans,” Dr. Eloubeidi concludes.

In The NEWS

Studying Emerging Infections/Synthetic Bioterrorist Agents

UPDATE: UAB’S BIOSAFETY RESEARCH STRUCTURE

UAB has an impressive track record of growth over the past 20 years, with funded research exceeding $300 million. In 2001, Biomedical I (Bevill Building) came on line, and Biomedical II (“Baby Bevill”) currently resides at 19th Street and 9th Avenue South. Now, the university’s extending its research corridor along 19th Street with construction of the Southeast Biosafety Laboratory (SEBLAB). UAB will demolish two buildings on the 9th Avenue/19th Street site to undertake the nearly 35,000 gross-square-foot facility. Work is scheduled to begin at the end of this year, with completion anticipated in late 2007 at a cost of $22,275,000.

In September 2003, UAB received a nearly $16 million grant from the National Institutes of Health (NIH) to aid in construction of the research facility, used to help develop the next generation of vaccines, drugs, and diagnostic tests for emerging infections, such as SARS and West Nile, and for defense against organisms, such as pox viruses, that might be used in bioterrorist attacks.

REGIONAL RESOURCE

“Our new facility will be a regional resource for researchers throughout the Southeast investigating the worst, most dangerous diseases and biological agents,” UAB Vice President for Research Richard Marchase, PhD, says. “UAB has a longstanding international reputation in virology, bacterial pathogenesis, and immunology. This facility will enable UAB to continue to work on diseases that affect the people of Alabama and beyond.”

Following 9/11 and the subsequent anthrax cases, as well as the spread of West Nile virus and SARS, a scientific panel determined that the nation needed additional laboratories specifically designed to conduct research into such lethal types of agents. UAB received 1 of the initial 11 grants. In addition to federal funding, the state has committed $5 million to the construction, and UAB will provide nearly $1.4 million.

The facility is known as a Biosafety Level-3 (BSL-3) Laboratory. Laboratories that handle infectious agents are rated on four levels. BSL-1 laboratories handle agents considered harmless; BSL-4 labs handle agents considered extremely dangerous and life-threatening. While the agents handled in BSL-3 labs can cause serious or potentially lethal diseases, effective treatment or immunizations exist. UAB and its affiliate Southern Research Institute already operate BSL-3 laboratories; their safety record has been flawless.

Research projects planned for the new facility include investigation into new vaccines for pox viruses, botulism,
and anthrax. Investigators also will explore the mechanisms by which these and other organisms function, with the goal of developing methods to disrupt their life cycle, creating new treatments. Other projects will investigate West Nile virus, Dengue Fever, tularemia, Rift Valley Fever, and Eastern Equine Encephalitis.

During the past 2 years, UAB researchers received significant grants to continue investigations into major infectious diseases. The university is leading a 35-site study to evaluate effectiveness of a potential new treatment for West Nile virus. This is part of a 7-year, $31 million grant awarded to UAB to support ongoing research activities of the National Institute of Allergy and Infectious Diseases’ (NIAID) Collaborative Antiviral Study Group. Also, UAB has been awarded a 4.5-year, $16 million NIAID grant to lead a multicenter study to develop and test a potential new class of HIV vaccines.

**UAB Wins $7 Million To Reduce Deep South Health Disparities**

The network targets two poor, rural regions — Alabama’s Black Belt and the Mississippi Delta — and two urban areas — Jefferson County and the Hattiesburg/Laurel metropolitan region. The network trains community leaders, known as community health advisors (CHAs), to educate family and friends about the importance of cancer prevention and early detection. To date, the group has trained 883 CHAs, increasing mammography screening among African Americans by 18%.

“The Deep South Network has already impacted the enormous health-care disparity that exists in our region,” Dr. Partridge says. “This grant will allow us to build upon the infrastructure that we’ve established and to train new community leaders who will educate their peers.”

As in the past 5 years, breast and cervical cancer will be the focus. A colon cancer emphasis also will be added.

Minority and underserved populations in the South have among the highest cancer rates in the country. The first step in educating the medically underserved is teaching that cancer screenings are effective and worthwhile. The next step is helping patients understand how the health-care system works.

“Health advisors understand the issues facing their individual communities, and people in their neighborhoods trust them,” program manager Claudia Hardy says. “They are able to educate, assist with access to care, and help individuals navigate the health-care system. Plus, the grant helps us provide significant economic support to the region by hiring local staff.”

**Boctor Joins Pathology**

UAB Professor and Chairman of the Department of Pathology Jay M. McDonald, MD, announces the appointment of Fouad N. Boctor, MD, PhD, as associate professor in the Division of Laboratory Medicine.

Dr. Boctor completed his BS degree in chemistry and his MS degree in applied chemistry at Cairo University in Egypt. After obtaining a PhD in biochemistry from Egypt’s Mansoura University and completing a postdoctoral fellowship at the National Institutes of Health in Bethesda, Maryland, he returned to Cairo University to complete his MD degree.

Following a pathology and laboratory medicine residency at the University of Connecticut in Farmington and a surgical pathology residency at New York University in New York City, Dr. Boctor served a fellowship in transfusion medicine and immunohematology at the University of Connecticut in Hartford. He is certified in anatomic and clinical pathology.

**MASA Annual Session**

The Medical Association of the State of Alabama (MASA) Annual Session is scheduled for June 30 to July 3 at Sandestin Golf and Beach Resort. The title for this session is “Manpower and Modern Miracles: The Impact on You.”

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UAB physicians: visit MSI, the password-protected Medical Staff intranet site, at https://horizon.hs.uab.edu.
ology and blood bank/transfusion medicine by the American Board of Pathology.

Most recently, Dr. Boctor served as assistant professor and blood bank director at Jack D. Weiler Hospital of the Albert Einstein College of Medicine (Montefiore Medical Center) in Bronx, New York, and as blood bank director and surgical pathologist at Coney Island Hospital in Brooklyn, New York.

Dr. Boctor’s current research focuses on immunology of platelets and pho-tophoresis. He may be reached at 934-0616 for academic and administrative calls; e-mail fboctor@uabmc.edu.

Religion, Spirituality, And Health Research Working Group

“Religion, Spirituality and Health Research Working Group brings together a multidisciplinary group of scientists with a broad range of interests in associations among religion, spirituality, and health and well-being,” according to Cheryl Holt, PhD, assistant professor in the Division of Preventive Medicine, and Julie L. Locher, PhD, assistant professor in the Division of Gerontology and Geriatric Medicine.

The group meets on first Fridays, 2 PM to 3 PM, in Medical Towers room 634 to work through research issues such as new findings, methodological challenges, new ideas for development, and evaluation of grant possibilities and manuscripts. Particular emphasis is placed on interactive sessions where a speaker presents a specific goal or question for group feedback. The overall goal is to provide a venue for UAB scientists who share a common interest in the study of religion and/or spirituality and health to exchange ideas and foster collaboration. For more information or to be added to the e-mail distribution list, contact Dr. Holt at 934-2816, cholt@uab.edu or Dr. Locher at 934-7542, jlocher@uab.edu.

CON UPDATE

In May, Brookwood Medical Center applied to the State Health Planning and Development Agency for a Certificate of Need to construct 44 new private rooms by converting existing licensed semiprivate to private rooms and to add four operating rooms and two 36-bed perioperative care units, together with the support space for operating rooms. It also will improve patient convenience through a concourse addition that will provide a new hospital entrance and better access from the parking deck.