

The Teleradiology Zone

S P R I N G 2 0 0 9



Sweeping Changes in Radiology

Larry McNamee, MD

There are sea changes sweeping through all of Radiology, a severe shortage of radiologists relative to an ever-increasing imaging load. Beyond absolute numbers, there is an even more critical shortage in expertise among practicing radiologists to accommodate the increasingly sub-specialized imaging studies made possible by rapidly evolving technology.

In 2008, there was a 15% increase in imaging studies, while there was only a 1% rise in the number of practicing radiologists. At best, the same ratio is predicted for 2009. Independent imaging centers are unable to afford an up-to-date, recently trained radiologist who can handle their study mix competently. At the same time, hospital radiology staff's are also shorthanded in terms of both radiologist numbers and expertise. These problems have now reached a critical mass, particularly in smaller rural hospitals.

Although teleradiology is still in its nascency, it has evolved rapidly to meet these challenges. Initially, teleradiology was a luxury functioning primarily in the nighthawk sphere to keep local radiologists in bed at night, and able to fully staff their departments for daytime work. This has changed dramatically in the last several years with teleradiology entering

mainstream diagnostic radiology by relieving the daily workload pressure, and providing highly specialized expertise to both outpatient and hospital radiology centers.

Specialty Teleradiology is uniquely poised to navigate these complicated crosscurrents facing diagnostic radiology. The reading environment in teleradiology is much more focused and efficient than in standard radiology which results in significant efficiencies in practice and report turnaround that are otherwise not possible. In terms of cost, Specialty Teleradiology can provide expert support to both independent, outpatient, and hospital sites at one half the expected FTE cost for radiologists in today's market. Further, when a department adds a new well-trained radiologist with subspecialty capability, it is restricted to the training and experience of this unique radiologist. Specialty Teleradiology can fill an FTE slot with the broad range of subspecialty and general diagnostic radiology expertise spread throughout its ranks.

For these reasons, teleradiology will continue to intermix with standard radiology in providing an efficient and cost-effective solution to today's challenges, while providing expert support to imaging centers where this had not previously been routinely available.

“Customer satisfaction and clinical excellence are our number one priority, you can count on Specialty Teleradiology as a valued business partner and an extension of your medical practice or hospital team.”

Send your e-mail address today to lisa@telerads.us and enter to win a \$75.00 Starbucks card.

Drawing will be held April 30, 2009.





Our Team

Dr. Larry McNamee, President & Founder of Specialty Teleradiology, is a Cleveland Clinic trained radiologist. Dr. McNamee completed his Radiology residency program in Diagnostic Radiology and Nuclear Medicine, as well as his fellowship training in



Hematology & Oncology at The Cleveland Clinic. He has led the way to a well respected career with a unique focus on PET diagnostic imaging. Dr. McNamee is complimented by a team of board certified radiologists, equally skilled to fill your subspecialty and diagnostic imaging needs. Experienced Body Imaging and MSK specialists on our team provide high quality, detailed reports that allow for the delivery of optimal patient care.

Our extended radiology team is comprised of professionals with combined subspecialty musculoskeletal, neurologic, and cardiac expertise, and are fellowship trained in MRI, MSK, Vascular Radiology, non Vascular Radiology, Neuroradiology, Cardiac, and Oncology. Our Radiologists are based in the United States and trained in the United States. Examinations are evaluated from the perspective of the treating physician, and are treated as consults. Reports are provided with unequivocal, concise findings. Referring physicians are encouraged to call our radiology staff with any questions about patient reports, as well as inquiries regarding potential diagnostic studies for their patients.

Specialty Teleradiology has developed a unique workflow and reporting mechanism to increase the efficiency of report turnaround to your practice. At Specialty Teleradiology we favor a personal approach and prefer working closely with our clients to provide

the highest quality of care for your patients. Our team can provide protocols and practices to ensure optimum study quality. The Specialty Teleradiology support team ensures a reliable, consistent workflow to ensure a rapid report turnaround within 24 hours, the team is available via phone or e-mail around the clock. Stat cases will be read within 30 minutes, and a Radiologist will always be available via phone to discuss any findings or questions you may have. Studies are treated as consults, and referring physicians are called immediately with any unexpected or urgent findings. Our experienced, knowledgeable IT support is offered to easily configure an efficient, reliable association to your practice.

Specialty Teleradiology Section Heads

Larry McNamee, MD

Oncologic Imaging

Alex Boutselis, MD

Body Imaging

Jonathan Metzler, MD

Musculoskeletal Imaging

Steve Jones, MD

Neuroradiology

Lakshmi Kode Sammarco, MD

Neuroradiology





Sample Report #1

EXAM:

PET/CT IMAGING FOR ESOPHAGEAL CANCER INITIAL STAGING

HISTORY:

76-year-old man with biopsy-confirmed partially obstructing distal esophageal malignancy.

TECHNIQUE:

11.2 mCi of FDG were injected with a fasting blood sugar of 91 mg/dl followed by dedicated PET/CT images from skull base to mid thigh.

NECK/CHEST:

Hypermetabolic distal esophageal malignancy at EG junction extends into gastric cardia presenting as large mass along anterior wall partially obstructing gastric and esophageal lumen. Bulk of mass is in proximal stomach. SUV of 20.4 reflects very metabolically aggressive tumor. No mediastinal metastatic adenopathy. No pulmonary nodule. No pleural or pericardial effusion. Three vessel coronary artery calcification.

ABDOMEN/PELVIS:

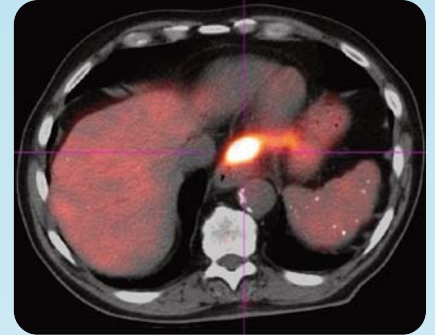
As noted above, bulk of tumor is in gastric cardia along anterior wall approximating 67 x 32 mm. Perigastric soft tissue planes are intact posteriorly. There is some loss of juxtagastric fat anteriorly raising possibility of local extension. Within this region are four small nodes averaging 2-4 mm which, though ametabolic, are likely below limits of PET resolution. There are also several small nodes in retroperitoneum just inferiorly, largest approximating 9 mm preaortic in location, just above celiac artery. Though ametabolic, suspicious for metastatic nodes and likely below limits of PET resolution. Liver is normal aside from granulomatous splenic calcifications which are also seen in spleen. No ascites or mesenteric adenopathy.

SKELETON:

There is normal, physiologic, low-level skeletal background activity present.

CONCLUSION:

1. Hypermetabolic malignancy at EG junction extending into gastric cardia with bulk of tumor in stomach.
2. SUV of 20.4 reflects very metabolically aggressive tumor.
3. Indistinct fat planes along anterior margin of stomach with several small nodes, in addition to similar sized retroperitoneal nodes just inferiorly. Though ametabolic, these are below limits of PET resolution, but suspicious for small-volume metastatic adenopathy.





Sample Report #2

EXAM:

MRI OF THE LEFT ANKLE

HISTORY:

Fracture six weeks ago. Persistent pain.

TECHNIQUE:

Multiplanar acquisitions include various T1 and T2 weighted sequences.

FINDINGS:

A fracture line through the distal fibula at the syndesmosis level is noted with nondisplaced avulsion fracture at the anterolateral margin of the distal tibia at the insertion of the anterior inferior tibiofibular ligament with the fragment measuring about 1 cm in size (series 9, image 11). This indicates a syndesmosis injury. No subluxation at the syndesmosis is otherwise suggested. The anterior talofibular ligament has been torn and there is some scarring. The calcaneofibular ligament appears intact at this time (series 10, image 18).

Extensive talar dome marrow edema is noted extending throughout the entire dome of the talus and extending into the neck with spurring of the distal head. Subtle subchondral fracture line is noted in the central talar dome. No discrete cartilage lesion. This extensive marrow edema may represent early avascular necrosis or extensive persistent stress marrow change with subchondral stress fracture. Moderate tibial talar and posterior subtalar joint effusions are noted. The sinus tarsi appear normal. The deltoid ligament has some thickening, but is grossly intact.

Marrow signal elsewhere in the visible midfoot and hindfoot appears normal. The tendons around the ankle including the Achilles tendon appear normal. The plantar fascial insertion on the calcaneus is normal.

CONCLUSION:

1. Extensive talar dome marrow edema with subtle subchondral nondisplaced fracture lines. Developing avascular necrosis is possible versus subchondral microfracture edema. No bony displacement.
2. Distal fibular fracture and nondisplaced avulsion fracture of tibia at anterior syndesmosis.
3. Tibial talar and posterior subtalar joint effusions.
4. No bony malalignment.





Case Study

PET/CT IMAGING FOR LYMPHOMA INITIAL STAGING

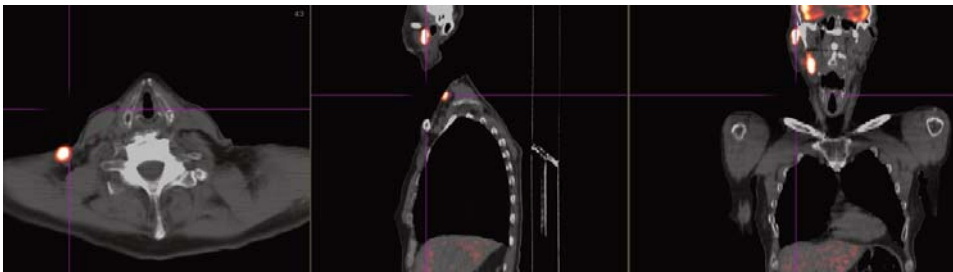
Larry McNamee, MD

HEAD/NECK:

Hypermetabolic right cervical adenopathy presenting as enlarged nodes and nodal aggregates in right upper anterior cervical chain, and lower right cervical posterior triangle, Levels II and V. Inferior extent in posterior triangle is at right nape of neck. There is also 19 mm right intraparotid lymphomatous node, and involvement of right submandibular gland. Peak SUV of 12.5 reflects metabolically aggressive tumor. No contralateral, left cervical nodal involvement.

CONCLUSION:

1. Hypermetabolic right cervical anterior chain and posterior triangle lymphomatous adenopathy.
2. SUV of 12.5 reflects very metabolically aggressive tumor.



Call Specialty Teleradiology, Inc., today and ask to speak with Dr. Larry McNamee. Discover how you can find a long term, successful solution for your radiology needs. We guarantee personal service, individual consideration, and detailed attention to all of our clients. That is our commitment to you.

Call Dr. McNamee at (216) 299-2500.

Client References

The Cleveland Clinic

St. Louis PET Centers

Creve Coeur, MO

PET/CT Services of Florida

Ocala, FL

Beverly Hills, FL

Glendale MRI Institute

Glendale, CA

Clermont Radiology

Clermont, FL

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Client references and phone numbers are available by request.

