


Your Partner in **Good Health**

 **Seton** Family of Hospitals

INSIDE:

New Breast Biopsy Options

Offering Accurate Diagnoses,
Reduced Patient Stress

Seton Medical Center Hays

Opening January 2010

NEW BREAST BIOPSY OPTIONS

OFFERING ACCURATE DIAGNOSES, REDUCED PATIENT STRESS

By Paula S. Oliver, MD, FACS

One in eight women will develop breast cancer at some point in her lifetime. It's the most common cancer occurring in American women (aside from non-melanoma skin cancer), and it is estimated that in 2008, more than 250,000 new cases will be diagnosed in the United States. Breast cancer is the second-leading cause of cancer death in women, trailing only lung cancer. Fortunately, new biopsy techniques enable accurate diagnoses and are less stressful for patients, often resulting in earlier diagnoses and better outcomes.

BREAST CANCER DETECTION

Breast cancer originates from a single progenitor cell and takes five to eight years to become palpable. Consequently, early detection is challenging. We talk mostly about

women because breast cancer in men is relatively rare, representing only 1 percent of cases. Vigilance is important for all women, but some women are at a higher risk for the disease. Even though breast cancer incidence and death rates generally increase with age, women under 40 are still at risk. The table on the next page lists factors that place a woman in the "High-Risk" category.

Approximately 90 percent of breast cancer cases are ductal carcinoma. This form is invasive and presents as calcifications on mammogram or ultrasound, a palpable mass or both. Its severity is graded by a Bloom-Richardson Score, using a scale of three through nine. Lobular carcinoma is the second most common type (5 percent). It is also invasive, but the prognosis is typically better. Due to its stealth development, lobular carcinoma is usually larger at presentation than ductal carcinoma. It rarely presents as a small distinct mass. Unlike ductal carcinoma, lobular carcinoma is frequently bilateral.

Mammogram is a critical tool, but it does not offer definitive detection. In fact, approximately 10 to 15 percent of palpable lesions are not visualized on mammogram. Unfortunately, they aren't all as obvious as the lesion in the image pictured left. Moreover, 25 percent of invasive cancers are missed in women ages 40 to 49 and 10 percent are missed in women ages 50 to 59. Approximately 10 percent of lesions spotted on mammogram are false positives. However, mammogram is the best exam for detecting microcalcifications.

Breast cancer can present in many ways. The physician may detect a small, nonpalpable mass seen only on mammogram, only on ultrasound or both. Or it can be initially found as cluster microcalcifications on mammogram. Or it can be found as a palpable mass detected during self-exam or physician exam. Consequently, vigilance in pursuing multiple screening methods is our greatest tool in detection and, ultimately, prognosis.

Once the mass is identified, the woman faces the biopsy. Suspicions as to whether a lesion is cancerous may be influenced by its shape, but biopsy still should be performed. For example, the odd shape of the lesion in Image 2 makes it highly suspicious for cancer, which it was. The round shape of the lesion in Image 3 makes it less suspicious; nevertheless, it was cancer.

Biopsy options have become less invasive in recent years. Certainly, the stress of waiting for the results still exists, but as the fear, scarring and general life disruption of the biopsy itself have been greatly reduced, this should lead to less procrastination in reporting a new lesion to a physician.

BREAST BIOPSY OPTIONS

The biopsy choice is based on characteristics of the lesion. If performed judiciously, all patients can maintain the full slate of treatment options. Fortunately for 80 percent of women, the results will show that the lesion is not cancerous.

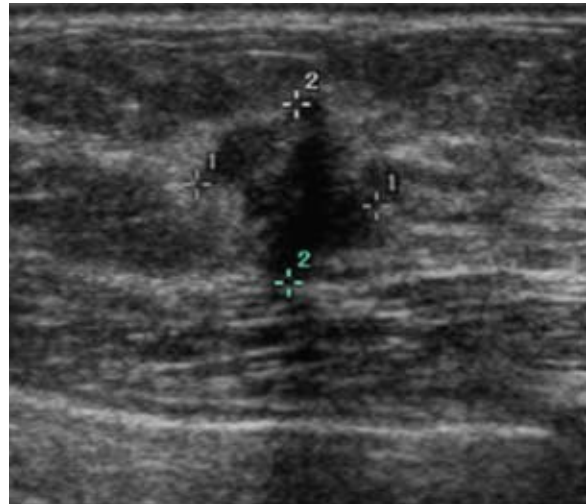


Image 2: Ultrasound showing a highly suspicious lesion

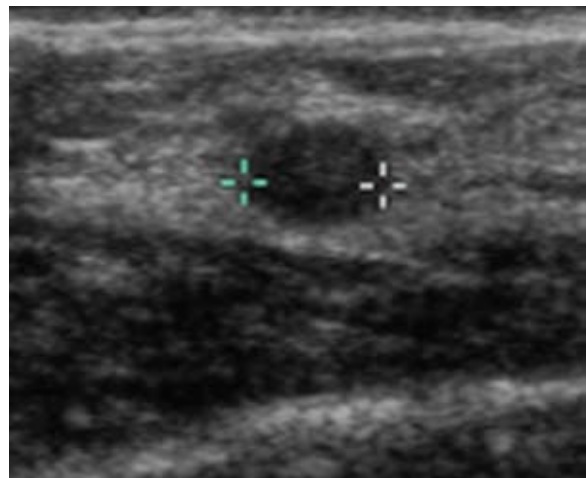


Image 3: Ultrasound showing a less suspicious lesion

Breast Cancer High-Risk Factors

- Personal history of breast cancer
- Primary degree relative with history (esp. premenopausal)
- Diagnosis of atypia
- Early menarche
- Late menopause
- Late first pregnancy
- No pregnancy
- Radiation exposure
- Presence of BRCA 1/BRCA 2 gene

Fine Needle Aspiration

For lesions that are palpable and highly suspicious for cancer due to previous diagnosis or other factors, a fine needle aspiration biopsy may be an appropriate option. The surgeon can perform the procedure in the office – usually without local anesthesia. And women also like that they can resume normal activities immediately.

FNA biopsy is performed using a 27-gauge needle and a syringe that is inserted into the lesion to withdraw cells. Only a few cells are gathered, so if the pathology report is negative for cancer, a more definitive biopsy that facilitates examination of more cells must be conducted to rule out cancer.

True-Cut Core

A true-cut core biopsy may be performed for lesions that are palpable, but not necessarily suspicious. This in-office

procedure does require local anesthesia, but it also allows the patient to return to her daily life immediately.

Under local anesthesia, a true-cut needle is inserted to withdraw a sample larger than an FNA sample. Occasionally, a small incision may be required. Because the core sample is small, removing the entire mass would require taking more than one sample. Multiple samples would create multiple tracks that can seed with tumor cells and stimulate spreading.

Like the FNA biopsy, because the entire lesion is not extracted, a negative pathology report leads to another biopsy.



Image 4: Biopsy using a hand-held Mammotome

Vacuum-Assisted Core Biopsies – Ultrasound and Stereotactic-Guided Mammotome

Ultrasound-Guided (Hand-Held Mammotome)

If the lesion is best visualized on ultrasound, a vacuum-assisted biopsy using ultrasound to localize the lesion is an option. The biopsy is performed using the Mammotome® Breast Biopsy System, a device that enables extraction of suspicious tissue through a small incision. Studies have shown Mammotome biopsies to be as reliable as traditional incisional biopsies in determining whether a woman has breast cancer.

Under local anesthesia, the woman lies on a table while the doctor places the Mammotome probe through a small incision approximately the size of a pencil eraser. Using ultrasound localization, the doctor pinpoints the suspicious tissue and gently removes a sample for testing. A small adhesive bandage is then used to cover the incision. Image 4 shows a hand-held Mammotome being performed.

Mammotome biopsy can be performed either in the surgeon's office or as an outpatient procedure in a facility. Conducting these procedures in-office is an option in most cases. The patient will already be in a surgeon's care if cancer is detected.

The procedure typically takes less than an hour. The woman can resume most normal activities immediately, enabling a quick return to work. However, women will have some exercise restrictions for two weeks. Scarring is minimal due to the size of the incision.

Because the entire lesion can be removed, a negative pathology report is viewed as definitive and further biopsy is not required. Notably, this procedure is not used for cancer treatment because there is no guarantee that the entire tumor will be extracted – the margins may not be clear and some cancerous cells may remain. Consequently, further treatment is required.

Stereotactic-Guided (Stationary Mammotome)

For lesions that are best seen on mammogram, a vacuum-assisted core biopsy using stereotactic visualization is a sound option. The procedure is nearly identical to the ultrasound-guided Mammotome, except that the equipment is larger and stationary. X-ray is used to localize the lesions. These biopsies are performed in a facility as an outpatient procedure.

Incisional Biopsies

With advances in minimally invasive biopsies, incisional biopsies are becoming increasingly rare. They may still be used for large palpable lesions that are highly suspicious, for example when cancer is strongly suspected due to previous history

Dr. Paula Oliver is a board-certified general surgeon with Capital Surgeons Group. For more information about breast-conserving surgery and treatment for your patients, please call (512) 302-1210 or visit www.capitalsurgeons.com.



and the woman has made her decision regarding lumpectomy or mastectomy. In such situations, the incisional biopsy is performed to test a sliver of tissue before proceeding with a lumpectomy or mastectomy.

Incisional biopsies are performed as outpatient surgery, using local anesthesia with sedation. The patient's recovery period will be dictated by which procedure she undergoes in the second stage.

Excisional Biopsies

An excisional biopsy may be performed for large palpable lesions, for cystosarcomas or for giant fibroadenomas that cannot be removed with a Mammotome biopsy. Performed as outpatient surgery using local anesthesia with sedation, this technique is often employed when the lesion is large, but not presumed to be cancerous. The lesion is completely removed, so a negative report requires no further biopsy.

Of particular concern with excisional biopsy is that it can cause more scarring than vacuum-assisted biopsy, resulting in false positives on future mammograms.

TREATMENT CONSIDERATIONS

For all the biopsy techniques except FNA, consideration must be given to placement of the incision site because all incision sites and needle tracks must be excised if cancer is found. Additionally, the physician should consider incision placement during biopsy to facilitate optimal cosmesis after a future lumpectomy or mastectomy with reconstruction.

EASIER ON PATIENTS

The availability of minimally invasive biopsies that yield accurate results has transformed the biopsy experience for most women. They not only benefit from minimal scarring of breast tissue and skin, they face much less stress and life disruption than patients even 10 years ago. The hope is that this will make women less hesitant to report lumps to their physicians so that cancer can be caught as early as possible.

Seton Sites Earn MAGNET REDESIGNATION

Four members of the Seton Family of Hospitals have been redesignated as Magnet hospitals by the American Nurses Credentialing Center. Dell Children's Medical Center of Central Texas, Seton Medical Center Austin, Seton Northwest Hospital and University Medical Center at Brackenridge have received the honor for the second time in a row.

Recognizing quality patient care, nursing excellence and innovations in professional nursing practice, the Magnet Recognition Program provides consumers with the ultimate benchmark to measure the quality of care that they can expect to receive. Redesignation appraisals occur every four years.

Seton facilities remain the only Magnet-designated hospitals in Central Texas. "We are proud of our nursing staff and their commitment to excellence and continuous improvement," said Seton's Chief Nursing Officer Joyce Batcheller, RN, MSN, CNAA, Robert Wood Johnson Executive Nurse Fellow. "We're also proud of the support and collaboration from our physicians and clinical staff throughout the hospitals. Earning this prestigious honor requires commitment and teamwork across all disciplines."

The ANCC Magnet appraisal team said they were impressed with each hospital and were especially complimentary of staff dedication to improving patient outcomes and enthusiasm for their work.



Seton Medical Center Hays

OPENING JANUARY 2010

PLANNED SERVICES

- Emergency Services
- Cardiac Care Services
- Women's Services
 - Labor & Delivery
 - OB/GYN
 - Nursery
- Critical Care Services
- Inpatient Medical Services Including Oncology
- Surgical Care Including Orthopedics
- Outpatient Therapies
- Diagnostic & Interventional Services

BUILDING A FIRST-RATE MEDICAL TEAM

The new medical campus will offer numerous opportunities for both primary care physicians and a variety of specialists. Our goal at Seton is to attract the most qualified, committed medical professionals and to establish mutually beneficial working relationships with our affiliated physicians.

CAMPUS FACILITIES

- Medical Office Building
- Diagnostic/Imaging Center
- Outpatient Surgery Center
- 900,000-square-foot Retail Development

MEETING THE HEALTHCARE NEEDS OF HAYS COUNTY

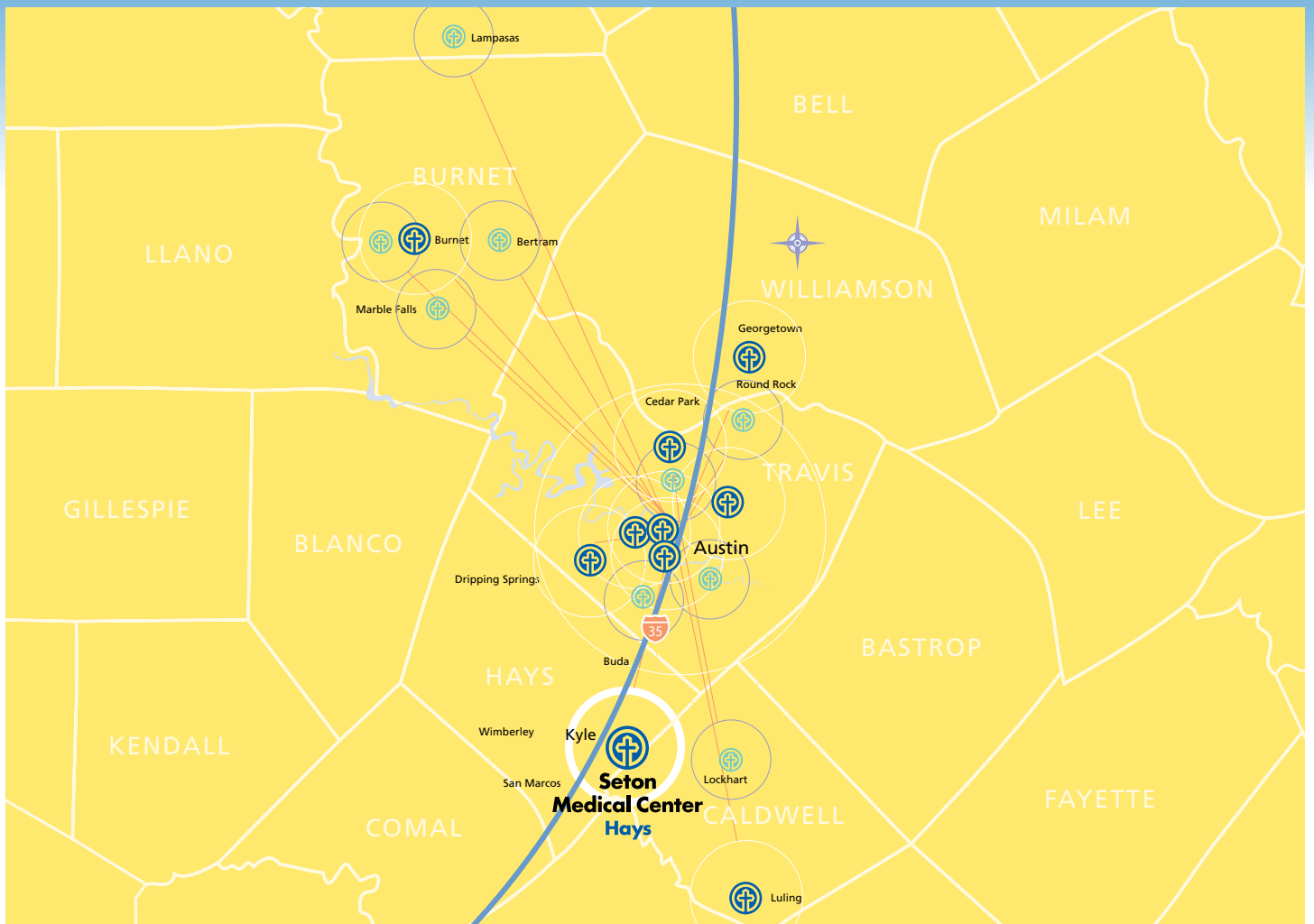
Hays County is booming and in need of more convenient, advanced healthcare services. Hays County and the surrounding area is expected to grow from a present population of about 130,000 to 185,000 in 2010, then climb to 285,000 by 2020. Located just five miles south of Austin in Kyle, Texas (currently the fifth fastest-growing city in Texas according the United States Census Bureau), Seton Medical Center Hays will be the largest medical facility in the county with 148 beds in the first phase to serve the healthcare needs of the entire family. The first phase will be completed in January 2010. When all construction phases are complete, the hospital is expected to offer more than 210 patient beds.

CONTACT

For more information about opportunities with Seton Medical Center Hays, please contact:

Patrick Garcia, MD, Vice President of Medical Affairs
(512) 324-8630 • pgarcia@seton.org

Delia Presley, Physician Relations Liaison
(512) 689-1564 • dpresley@seton.org



WE'VE GOT YOU COVERED.

From Lampasas to Luling, the Seton Family of Hospitals has been one of Central Texas' most respected residents and the region's health-care leader. Now, our family network is proudly expanding into Hays County. Our leading-edge facility will be the county's largest healthcare resource and is destined to become its most preferred.

With our foundation of faith and a legacy of award-winning care, we're ready to serve the healthcare needs of Hays County. We've got you covered.



Corner of I-35 and Kyle Parkway, Kyle, Texas. For more information, visit seton.net/hays.