Dr. Brigitte Ala can now provide more accurate diagnostic information for patients faced with breast cancer.

About 429 Canadian women are diagnosed with breast cancer every week.[1] In the past, many of these women would have faced a stark decision along the road to this diagnosis: undergo an open surgical biopsy which carries with it the risks of general anesthesia and may leave significant scarring, or opt for a core needle biopsy which may require multiple insertions and yields very small tissue samples that may not be sufficient for a conclusive diagnosis.

Today, women in Canada have a third choice.

A vacuum assisted breast biopsy system uses a sophisticated medical device that allows doctors to remove larger tissue samples from the breast without the need for an open surgical procedure. Like a needle biopsy, a thin device is inserted into the breast, guided by X-Ray, ultrasound or MRI. However, the automated vacuum assisted device is slightly larger and much more sophisticated than a simple hollow needle. It produces larger samples which allow pathologists to produce more accurate diagnoses.

"The biopsy system has allowed me to improve patient care by increasing my diagnostic accuracy," says Dr. Brigitte Ala of Windsor's Hotel Dieu Hospital. "This has significantly decreased the amount of breast surgery performed at our facility for benign disease, freeing up surgeons for other surgeries."

In the past, patients would be faced with open surgery if a needle biopsy proved insufficient, or to remove small, benign masses from the breast. Open surgeries increased demand on operating rooms and exposed patients to increased risks from general anesthesia, infection, etc. The automated vacuum assisted breast biopsy system produces larger sample sizes that provide for more accurate diagnosis. It can also be used to actually remove small benign masses without the need for open surgery.

The procedure can be performed without general anesthesia and involves little or no pain. Recovery time is reduced and patients can return to regular activities immediately following the procedure.

"The procedure is better tolerated than surgery, and allows for a much better cosmetic result," says Dr. Ala.

The technology is easy to use, portable and has several different applications for different imaging requirements.

technology overview

The automated vacuum assisted breast biopsy system is a minimally-invasive, image-guided, diagnostic breast biopsy device for use under Ultrasound, Stereotaxis (X-Ray) or MRI. It is used to provide a diagnosis for abnormal breast tissue growth to determine if it is benign or cancerous. It can also be used to remove small benign masses without the need for open surgery.

The system uses the latest in technology to automate and efficiently manage the tissue sampling process through a single insertion into the breast. When the probe is placed in the tissue, vacuum aspiration gently captures the specimen in the open aperture. The rotating cutter senses the tissue and sets the optimal speed at which to accurately dissect the tissue. Then, the cutter retracts and the vacuum system transports the tissue sample to the notch to be retrieved.

fast facts

- Breast cancer is the most common cancer among women.[1]
- One in nine Canadian women will develop breast cancer. One in 27 will die from it.[1]
- About 429 Canadian women are diagnosed with breast cancer every week. About 102 Canadian women die from it each week.[1]

1 Canadian Cancer Society, http://cancer.ca/ccs/internet/standard/0,3182,3172_14435_371399_langId-en,00.html. (2008)

Vacuum Assisted Breast Biopsy System

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