Finding the Finest Specimen

In the 1997 Woody Allen film Deconstructing Harry the main character make the observation that, "The most important words in the English language are not 'I love you' but 'It's benign.'"

Funny? Yes, but also disturbingly true.

One of the sad blights of modern society is that as it continues to advance it inevitably, and often unknowingly, produces a whole slew of carcinogens and other disease causing agents in the process. As a result, cancer has become incredibly pervasive among the populations of the world's most developed nations.

Fortunately, medical advancements in tumor removal and radiology have lead to effective treatments for cancer, and rigorous research is continuing to help people recognize and avoid cancer causing agents. Still, with so many types of cancers, and so many ways to contract the diseases, it is often early detection and treatment rather than vigilant prevention tactics that save the day in the end.

Of course, the first step in any treatment is diagnosis, and in the case of cancers (as well as a number of other medical conditions) diagnosis requires the examination of a sample of the diseased tissue by a pathologist. The tissue specimens needed for diagnosis can be obtained by growing range of biopsy procedures, depending on the afflicted body organ. Some organs require major surgery in order to perform a biopsy, but many others including the liver, lung, and breast can now be biopsied in a matter of minutes and often without anesthesia.

Naturally, as better techniques for obtaining biopsy samples continue to be developed, the technology behind the biopsy procedures is steadily advancing. Today doctors have access to a veritable arsenal of biopsy devices that can safely and efficiently retrieve desired tissue samples with little discomfort to the patient.

The Cassi&#153 Rotational Core Biopsy Device from Sanarus Medical, Inc. is a hand-held, large core biopsy device that is fully automated, self contained, and disposable post-procedure. It is indicated for use in obtaining biopsies from soft tissues such as liver, kidney, prostate, spleen, lymph nodes, and various soft tissue tumors, though not for bone. Under ultrasound guidance, Cassi utilizes Sanarus's patented Stick-Freeze&#153 Technology to deliver large and precise tissue samples in fewer passes, saving time for the physician.

The Cassi Biopsy Device is also indicated to provide breast tissue samples for diagnostic sampling of breast abnormalities. The minimally invasive, lightweight, and ergonomically designed device makes accurate breast biopsies quick and easy. After a local anesthetic is administered, the lesion is immobilized by a quick "stick-freeze" that secures the targeted tissue to the needle. Cassi's simple two-button operation then allows the capture of a large core sample in seconds.

Boston Scientific's Easy Core&#153 Biopsy System offers ergonomic design combined with increased notch size. The device's ergonomic handle and precision ground, electro-polished stylet and cannula promote controlled, automated core biopsy. Needle gauge identification is provided on the Easy Core's handle to aid the clinician in proper device selection, and a yellow cross indicator is designed to confirm that the system is armed. The lightweight handle enhances dexterity, and an underside grip facilitates multiple hand position options. A single arming thumb tab greatly simplifies system preparation and is designed to remain stationary during firing to enhance stability. This reduced arming force decreases required hand strength, while side and rear firing buttons reduce the need for the clinician to alter his hand position for firing.

Etched cannula markings and an echogenic tip help improve assessment of the Easy Core's needle position during ultrasound guidance, improving visibility. The stylet and cannula are specially engineered to provide exceptional cutting performance, guaranteeing the biopsy specimens are clean and uncrushed. The Delta Cut&reg Needle and increased specimen notch size are designed to improve the volume of the sample, facilitating accurate diagnosis.

The Easy Core Biopsy System is available in a convenient kit with the PinPoint&reg Introducer Needle for a co-axial approach.

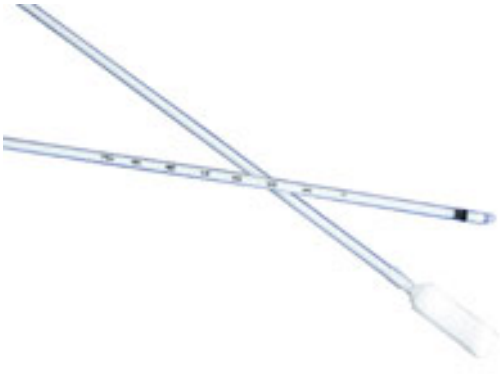
The newest offering for the breast biopsy market from Bard Biopsy Systems, the VACORA&#153 Vacuum Assisted Biopsy System, is 100-percent self-contained. This means that everything has been integrated into the handpiece, including the world's smallest biopsy vacuum, all tubing, fluid canister, battery power source, and the biopsy needle. The entire system weighs only one pound, eliminating back-end weight and facilitating exact control. The VACORA allows for exceptional handling and maneuverability during MRI, ultrasound, and stereotactic biopsy procedures.

The Mammotome&reg Breast Biopsy System from Ethicon Endo-Surgery, Inc. allows physicians to use x-ray or ultrasound imaging methods to guide the Mammotome probe into a suspicious area of the breast and gently collect the abnormal tissue through a small, ¼-inch incision. With the Mammatome, breast biopsy can be performed in an outpatient setting under local anesthesia. A doctor can make a precise analysis with minimal pain, scarring and recovery time, letting patients return to their normal daily activities immediately after the procedure.

The Mammatome system has also received FDA clearance for use on non-cancerous breast lumps. This has opened up the opportunity for women with fibroadenomas to receive care in a doctor's office with a minimally invasive device rather than having the lump removed by invasive surgery in an operating room, resulting in less scarring and quicker recovery.

Ranfac's Disposable Biopsy Needles are uniquely designed to provide a safe and efficient method for automatically obtaining percutaneous or surgical histological specimens with minimal risk of lacerations and fragmentation. The needles are very adept at maintaining the integrity of the specimen.

Designed for one hand operation, the needle's lightweight and compact spring-activated design utilizes technology based on the TRU-CUT Principle. Sharp beveled points allow penetration into the specimen with less trauma to the surrounding tissue. Manual advancement of the stylet then allows for imaging of the tissue in the notch prior to activation. Etched depth marks, along with a depth marker, provide easy visualization of the correct depth, and disrupted metal at the tip allows for visualization enhancement during ultrasound procedures. Ranfac's single-use needles are currently available with specimen notches measuring 10 mm or 20 mm.



Miltex, Inc. recently announced an addition to their existing Miltex Sterile Disposable Biopsy Punch product offering, the Sterile Disposable Biopsy Punch with Plunger System. The new biopsy punch, featuring a patent-pending internal plunger system, addresses the challenge of removing a skin specimen when it becomes lodged inside the metal lumen of the punch. The internal plunger system operates similar to a retractable pen, providing the user with effortless ejection of a lodged skin specimen without damaging it. The new biopsy punches are available in 1.0-mm, 1.5-mm, and 2.0-mm sizes, and are color-coded by size.

Miltex also offers the Endometrial Biopsy Cannula, which is available in both a SoftFlex&#153 and FirmFlex&#153 style for easy one-step sampling. The SoftFlex is ideal for standard or routine patient sampling applications where a more flexible cannula is desired, while the FirmFlex is slightly more rigid and better equipped for controlled insertion and sampling in patient cases where endometrial atrophy or cervical stenosis is a concern. Both the SoftFlex and FirmFlex patterns are sterilized

via ETO, packaged individually for single-use applications, and provided in convenient quantities of 25 per box.

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