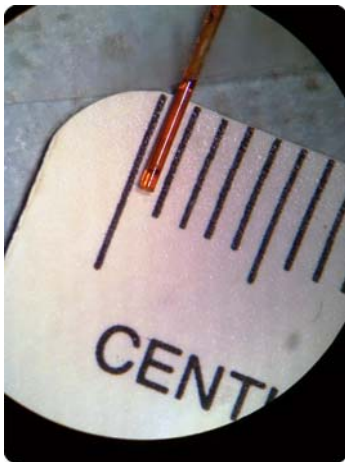


Ascension Unveils New Microminiaturized Sensor for Guiding Ultrathin Needle Procedures

BURLINGTON, VERMONT, USA; March 4, 2010: Ascension Technology, maker of 3D sensors for guiding medical instruments, will demonstrate the world's smallest six-degrees-of-freedom sensor at SIR 2010 – the annual conference of the Society of Interventional Radiologists (www.sirmeeting.org), Tampa, Florida, March 14-17, 2010.

When integrated with an ultrasound platform, “trajectory” visualization software, and a needle toolset, Ascension's new 0.55 mm wide sensor enables accurate, percutaneous navigation of biopsy needles, catheters, and guidewire tips to internal landmarks or target zones without radiation or open surgery.



Ascension's new 0.55 mm wide sensor, ready for embedding in the tip of a PICC or CVC needle. Simultaneous tracking of the needle tip and the ultrasound scan planes provides real-time feedback of a needle or catheter's trajectory to a target zone.

Ascension developed the sensor for navigating 19-20 gauge needles commonly used for central venous catheter (CVC) and peripherally inserted central catheters (PICC) placements. Its key advantage is real-time feedback regarding catheter and guidewire tip position without exposure to the radiating effects of fluoroscopy.

Currently CVCs catheters are placed using fluoroscopy to visualize the position of the insertion as it is advanced to its target location. In some cases, insertions are done without real-time image guidance. In the later case, a chest radiograph must be obtained and interpreted before the catheter is deemed ready for use. The application of sensor-driven ultrasound guidance to the insertion problem ensures correct positioning while avoiding time delays and the risk of ionizing radiation.

Availability of the sensor is presently reserved for medical device companies planning to use it in developmental projects.

Also at SIR, Ascension will show its 0.9 mm sensor configured with hardware and software for procedural use. The 0.9 mm sensor will be shown integrated in the tip of CIVCO's new eTRAX™ needle guidance system running on Ultrasonix's SonixGPS ultrasound platform.

For biopsy-needle tip navigation, the sensor's real-time spatial data is graphically overlaid on video images of the B-scan plane. The clinician can then monitor the real-time trajectory of the needle through delicate anatomy to the geometric center of an internal target, such as a tumor, cyst or polyp. This process clearly visualizes the location of the needle – either “in” or “out” of plane – for either a longitudinal or transverse approach.

Even before the skin is punctured, the system registers the biopsy needle to the center of the target, predicting the path of the needle while avoiding other anatomical structures. As the needle advances towards the target, the fused images provide real-time feedback. Once optimally positioned, the needle can be rotated to a perpendicular plane to provide three-dimensional verification that the tip is on target. Targets can also be marked and mapped for follow-up.

At SIR, Ascension's booth in the exhibit hall is **2419**.

About Ascension

Ascension Technology Corporation is a world leader in magnetic 3D localization and guidance for medical applications. Its third generation magnetic sensors represent the key enabling technology for image-guided procedures. More information about Ascension trackers along with streaming video is available at www.ascension-tech.com.

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