Ultrasound-Guided Regional Anesthesia: Essential Clinical Themes

A few additional clinical points should be made:

1. When using the live technique, the needle MUST be visualized before being advanced. The ultrasound beam is very thin which means that subtle movements can bring the needle in and out of visualization.

2. Subtle pressure or angulation of the probe when in contact with the patient can dramatically improve or worsen your image.

3. Interventional radiologists practice their needle biopsy skills using a turkey breast with an olive in it, which mimics a cyst. We have our residents practice on this model during their regional rotation. You are encouraged to practice on such a model.

4. There are many different machines on the market. We chose to use a hand-held device for its portability and affordability. However, traditional machines may produce better images.

5. Talk to your local radiologists and sonographers for tips and hints on using ultrasound. Specifically, the operator should be familiar with color flow indicators, gain, focus, and image storing.

6. Keep a database of your cases, you will quickly realize that your blocks will be faster, better, and will likely improve patient satisfaction.

7. Many ultrasound systems come with needle guide systems for their probes. These are devices that secure the needle to the probe and allow the operator to follow a predetermined course to your target of interest. Although on the surface these devices may sound attractive, we found that they often limit the options of the anesthesiologist. That is, once the needle is secured into the needle guide, one can not change angles and approaches to the nerve that would allow generation of the doughnut sign.