

Back To Basics 1: Thoracoabdominal Biopsies & Drainages

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Biopsies:

Image -Guided percutaneous needle biopsy has been a mainstay of oncologic diagnosis for more two decades, since the advent of ultrasound and Computed Tomography (CT). The basic principles of needle biopsy can be applied to almost any site in the body, with subtle differences in technique depending on the organ being investigated and the imaging modality utilized. Most patients are referred to an interventional radiologist for percutaneous biopsy as a standard of care in the diagnosis of most tumors throughout the body. Needle biopsy also is used to diagnose non-cancerous conditions such as infection. Advances in imaging techniques have led to greater precision in targeting tumors and allowing for minimally invasive percutaneous biopsy of tissue inaccessible to minor surgery, such as lung lesions. The indications, patient preparation, the best imaging modality, technique and several tricks and tips how to avoid dangerous complication will be discussed.

Drainages:

Thoracic and abdominal fluid collections are frequently encountered. It can be as simple as transudates effusion or exudates collection such as in abscess form or hematoma. The fluid collections can occur either in the solid organs or can accumulates in the free space for example in pleural cavity, intra-peritoneal space and retro-peritoneal space. The clinical manifestations are varies from shortness of breath, abdominal distension, pain, fever and sepsis. Once it causing symptoms to the patient, these fluid collections need to be drained out. Image guided percutaneous drainage or catheter insertion is minimally invasive procedure that is simple, safe and effective technique, avoiding patient from massive open surgery. Before that, the best imaging modality must be correctly chosen in order not to delay treatment process, for making correct diagnosis and finally for proper percutaneous drainage plan. The indication, preparation, equipment and technique, several tips and some pitfalls during doing the procedure will be discussed based on presenter owned experienced. Although it looks simple and can be performed by any Radiologist, the procedure must be done in correct technique and effective way to achieve both high technical success and clinical success rate, and the most important not to worsen patients' clinical condition.