Title: Ultrasound guided forceps biopsy of the pleura

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Body: Background: Ultrasound guided forceps biopsy of the pleura is a technique that can cover the diagnostic yield gap between the needle biopsy of the pleura and thoracoscopy or thoracotomy. This technique enables the operator to take biopsy from multiple pleural sites. Study Objectives: (1) To describe the ultrasound guided forceps biopsy of the pleura as a technique that is not in common use in our practice to obtain pleural biopsy. (2) To evaluate the diagnostic yield of this technique in undiagnosed exudative pleural effusion. Design: Prospective interventional study. Setting: Ultrasound Unit- Chest Department-Assiut University Hospital - Egypt. Patients and Methods: All recruited patients (96) had exudative pleural effusion with first pleural tapping undiagnostic. Patients with bleeding tendency or blood coagulation defects were excluded. The procedure was performed under local anesthesia (Xylocaine 2%) and aseptic condition. The patients were premedicated by analgesic (Ketorolac thromethamine 20mg). Three to five biopsy fragments were obtained from each case and sent in 10% formaldehyde to the pathology laboratory. The diagnostic yield was compared with that of thoracoscopy. Results: Compared to thoracoscopy the sensitivity in diagnosis of malignant and tuberculous lesions was 85% and 88% respectively. The technique was absolutely specific in diagnosis of malignant and tuberculous lesions. Conclusions: Ultrasound – guided forceps biopsy of the pleura is a simple, efficient, and safe procedure. It can be carried out easily and safely even in sick and obese patients. On the other hand, the procedure appears similar to the thoracoscopy in obtaining adequate pleural tissue specimens. Yet, it is simpler and less traumatic.