

## Role of Closed Pleural Biopsy in the Etiological Diagnosis of Pleural Effusions

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### Abstract

**Background:** Pleural effusion is accumulation of fluid in pleural cavity due to disequilibrium in the formation and removal of pleural fluid. Pleural effusion is a sign of disease and not a diagnosis by itself. Detecting pleural effusion is easy but finding the etiological cause is difficult since both pulmonary and extra-pulmonary conditions can cause pleural effusion. **Aim:** present study was undertaken to assess the value of closed pleural biopsy in establishing the etiology of pleural effusion. **Methods:** Prospective observational study conducted in Tuberculosis and Chest Disease Wards at SVRR Government General Hospital, Tirupati. Abrams Needle is inserted into the pleural space by exerting firm pressure on the stylet, or by screw like movements. The biopsy specimen obtained in the notch at the distal end of the outer trocar is collected in to a bottle containing 10% formalin. Biopsy specimens sent to pathology department for histopathological examination. **Results:** Total of 59 patients were taken into the present study adequate specimen is obtained in 57(96.61%) out of 59 patients. In 2 cases pleural tissue not obtained, as patients were not willing, procedure not repeated. Out of 59 cases 39(66.10) were presented with massive effusion and 20(33.89) were moderate effusion. In haemorrhagic effusions out of 23 cases 12 (52.17%) were diagnosed as malignant effusion, 7 (30.43%) were diagnosed as Tuberculous effusion, 4 (17.39%) were non specific. **Conclusions:** closed pleural biopsy provides a very high diagnostic yield especially in Tuberculosis and malignancy, which are two most important causes of exudative pleural effusion. It is safe, simple and cost effective procedure in the diagnosis of pleural effusion. However in arriving at an etiological diagnosis of pleural effusion also requires additional investigations along with pleural biopsy.