INTRODUCTION

Pleural space disease is complex, difficult to diagnose, and problematic to manage. A wide variety of neoplastic, inflammatory, and infectious diseases may involve the pleural space also as a complication of wide variety of neoplastic and non-neoplastic processes in the chest *(Kuhlman and Singha 1997).*

A number of different imaging modalities can be used in the assessment of pleural disease. Although the ultrasound has been the more traditional method, CT has found increasing utility for the assessment of the empyema and loculated pleural fluid collections prior to drainage and the evaluation of benign and malignant pleural tumors *(Mcloud 1998).*

Pleural diseases encompass a variety of complex appearances that are dependent on the underlying histological features, location and size. Chest radiography remains the most common imaging modality in the evaluation of suspected pleural disease. However complex parenchymal pleural disease may also be difficult to sort out with conventional radiography alone and often benefits from further analysis by CT examination (*Westcott and Volpe 1995).*

Computed tomography (CT) further delineates the cross sectional anatomy, allowing visualization of entire pleura, including the posterior recess, mediastinum and lateral pleural surfaces, which are frequently obscured on chest radiographs. CT imaging provides useful information to characterize the pleural disease in terms of tissue composition, location, and extent of disease *(Knisely and Kuhlman 1997).*

A number of benign pleural processes can mimic neoplastic disease on conventional chest radiographs. Often cross sectional analysis of the pleural abnormalities using CT can identify the process as a benign one *(Schmutz et al., 1993).*

CT is superior to radiography for the identification of early abnormalities in-patient with malignant pleural mesothelioma (MPM). Very small effusions can be detected, and the lung and pleural surface that is obscured by large effusion can be visualized. The spread of tumors into fissures, mediastinum, and chest wall can also be detected thus the extent and morphology of the disease can be assessed better. CT scans commonly depict pleural thickening (92%) and thickening of the interlobar fissures (86%) in-patient with MPM. CT allows visualization of the rind like thickening, nodular thickening, fissural involvement, and focal pleural masses, which are not as readily distinguished on chest radiographs *(Barbara et al., 1996).*

The number of image-assisted or image guided interventional procedures directed at the pleural space have increased in the last few years *(Klein et al., 1995).*

CT greatly facilitates the diagnosis of pleural space disease and advances in image-guided procedures have significantly improved treatment options for many complex pleural space processes *(Kuhlman and Singha 1997).*