Introduction

Ultrasound has become the imaging modality of choice for guidance of many procedures in the pleural space **(klein et al., 1995)**

Regarding the diagnostic yield of C.T. scan and sonography especially the pleural lesions, the results were more or less the same.

The superiority of the ultrasound is related mainly to economic and technical factors rather than a true diagnostic yield over the C.T. scan , still the C.T.has its place as the most sensitive and to great extent specific diagnostic image in chest diseases involving the pleural ones

(Yang et al, 1992)

The technique of ultrasound, which is cost-effective, compared to C.T. scanning and MRI may be learned relatively easily by the pulmonologists.

Major advantages include beside availability, absence of radiation, and guided aspiration of fluid-filled areas and solid tumors

(Beckh et al, 2002)

Examination of the chest is a rapidly developing application of ultrasound and may be used to evaluate a

wide range of peripheral parenchymal, pleural and chest wall diseases.

The technique is particularly suited to beside use in the intensive care unit, where suboptimal radiography may mask or mimic clinically significant abnormalities and where differentiation of pleural from parenchymal changes can be challenging.

Furthermore, ultrasound is increasingly used to guide interventional procedures of the chest, such as biopsy and placement of intercostal chest drains.

This essay presents a review of the clinical uses and sonographic findings in a variety of pleural, parechymal and chest wall diseases

(koh et al,2002)

The value of sonography for the detection of pleural lesions is well known.

Sonography is useful in defining the nature of pleural masses, and localizing loculated or minimal effusion before thoracocentesis .

Recently, chest sonography has been found useful in detecting pleural and pleurally based lesions, evaluating pleural involvement by lung tumor, assessing lesions in lung parenchyma, and guiding percutaneous transthoracic biopsy **(Yang et al., 1992).**

Ultrasonography is particularly useful in guiding biopsy of peripheral lung tumors obscured by pleural effusion.

Preliminary inspection of the chest x-ray is essential in planning to approach to ultrasound guided biopsy **(Brant et al, 2001)**

Ultrasound is superior to chest x-ray in identifying pleural fluid collection and the value of chest sonography for thoracocentesis was established more than a decade ago, however, a reduction in complications or dry taps has not consistently been shown **(Andreas et al, 2003)**

Aim of the work

The aim of this work is to evaluate the potential role of ultrasound in diagnosis of a variety of chest diseases especially the peripheral pleuropulmonary diseases.
Some illustrative cases are included.