

# **Value Of The Thoracic Ultrasound In The Assessment Of Malignant Pleural Effusion.**

*Thesis*

*submitted for partial fulfillment of the master degree in Chest Diseases*

*by*

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**List of Abbreviations**

2D	Two Dimentional
ADA	Adenosine Deaminase
B-mode	Brightness mode
cc	Cubic centimeter
CECT	Contrast Enhanced Computed Tomography
cm	Centimeter
COPD	Chronic Obstructive Pulmonary Disease
CT	Computed Tomography
CXR	Chest X-ray

## *Review of Literature*

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ESR	Erythrocyte Sedimentation Rate
EUS-FNA	Endoscopic Ultrasound with Fine Needle Aspiration
FNA	Fine Needle Aspiration
ICU	Intensive Care Unit
IMT	Inflammatory Myofibroblastic Tumor
kHz	Kilohertz
LDH	Lactate Dehydrogenase
MDCT	Multi-Detector Computed Tomography
m/s	Meter per Second
MHz	Megahertz
ml	Milliliter
mm	Millimeter
M-mode,	Motion mode
MRI	Magnetic Resonance Imaging
MT	Medical thoracoscopy
n	Number
No	Number
NPV	Negative Predictive Value
PPV	Positive Predictive Value

## ***Review of Literature***

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SD	Standard Deviation
sec	Second
SPSS	Statistical Package for the Social Sciences
TUS	Thoracic Ultrasound
UK	United Kingdom
US	Ultrasound
VTSA	Video Assisted Thoracoscopic Surgery
Vs	Versus

## **Introduction**

A pleural effusion is an abnormal collection of fluid in the pleural space resulting from excess fluid production or decreased absorption (*Diaz-Guzman and Dweik, 2007*).

Pleural effusion is a highly common clinical presentation in malignant and benign diseases. The differential diagnosis is broad and includes heart failure, parapneumonic effusion, empyema, pulmonary emboli, inflammatory disease and malignancies (*Daniels and Ryu, 2011*).

The tests most commonly used to diagnose and evaluate pleural effusion include: Chest x-ray , Computed tomography (CT) scan of the chest, Ultrasound of the chest (US) ,Thoracentesis and pleural fluid analysis. When the pleural effusion has remained undiagnosed despite previous less-invasive tests, thoracoscopy may be performed (*National Cancer Institute, 2006*).

Transthoracic ultrasound has received increased interest from chest physicians in recent years as it has the advantages of bedside availability, absence of radiation, and guided aspiration of fluid-filled areas and solid tumors (*Beckh et al., 2002*).