INTRODUCTION

The mediastinum is an extra pleural space lying between pleural lining of right and left thoracic cavities and bounded superiorly by thoracic inlet and inferiorly by diaphragm ***(Ewing and hardy, 1978).***(38)

Original intraembryonic coelem (primordium of the body cavities gives rise to three well defined body cavities in the 4th week of gestation that forms boundaries of mediastinum, the cavities consist of pericardial cavity, peritoneal cavity and two pericardio peritoneal canals ***(Moon et al., 1993).***(118)

Clinically mediastinum is divided into three areas :

A-Antero-superior mediastinum that contains thymus, ascending aorta, lymph nodes and fatty areoler tissue.

B-Middle mediastinum that contains heart, pericardium, trachea and hila of lungs.

C-Posterior mediastinum that contains, sympathetic chain, vagus nerves, intercostal nerves, oesophagus, azygos vein and ascending thoracic aorta ***(Ewing and Hardy, 1978).***(38)

The major lesions occuring in anterior mediastinum are thymomas, lymphomas, germ cell tumors and teratomas, less common masses of vascular origin or mesenchymal origin, in middle mediastinum enterogenous cysts, bronchogenic, oesophageal, gastric cysts and primary as well as secondary tumors of lymph nodes, most lesions arising in posterior mediastinum are neurogenic tumors, neuroenteric cysts and rarely vascular lesions ***(Capoferri et al. ,1998).***(22)

Incidence and types of primary mediastinal tumors and cysts, vary with age of patient, in infant and children most common lesions in the order of decreasing frequency are neurogenic tumors enterogenous cysts, germ cell tumors, lymphomas angiomas and lymphangiomas while in adults most common tumors in the order of decreasing freqency are neurogenic tumors, thymic tumors, lymphomas, germ cell tumors, enterogenous cysts and pericardial cysts ***(Shields and T.W, 2003).***(160)

In children approximately two thirds of tumors and cysts are asymptomatic whereas in adults approximately one third produce symptoms, the sing and symptoms that occur depend on benigncy or malignancy of lesions, it's size, location and presence or absence of infections, however, most common symptoms are pain, cough and dysnea ***(Lewis and J.L.,1987).***(93)

Mediastinal tumors are investigated by : Standard roentgenography which remains the basic diagnostic tool, determine, size, density, location and presence of calcification ***(Harris et al., 1987).(64)***

Computed tomography (CT) is sensitive method of distinguishing between fatty, vascular, cystic and soft tissue masses ***(Prayer et al., 1990).***(136) Magenetic resonance imaging (MRI) may supply additional useful information in separating mediastinal tumors from vessels and bronchi, especially when the use of contrast material is contraindicated ***(Gualdi et al., 1994).***(59)

Computed tomography (CT) guided fine needle aspiration biopsy : achieve diagnosis at minimal risk in patients who are poor anesthesia risks or have mediastinal masses thought to be neither vascular nor resectable at surgery ***(Rotte and K.H., 1995).***(147)

Positron emission tomography (PET) scn is recent diagnostic method **(Gente,2002)**.(49)

The precise nature of lesions in mediastinum can not be determined without histological examination of tissue, nontheless and reasonable preoperative diagnosis for each lesion frequently can be made by considering its location in mdiastinum, age of patients, presence or absence of local or constitutional symptoms, signs and the associations of a specific systemic disease, when diagnosis is established, treatment must be individualized with surgical management involving exploration staging and total excision of lesion ***(Cohen et al., 1997).***(25)

AIM OF THE WORK

The aim of this work is to study diagnostic accuracy of different diagnostic modalities and role of surgery in management of mediastinal masses.