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Surgery

MULTIPLE CYSTIC MEDIASTINAL LYMPHANGIOMA IN AN ADULT: A CASE REPORT

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ABSTRACT Lymphangiomas are rare congenital malformation of lymphatic system accounting for 0.4 – 4% of mediastinal tumors with uncommon occurance in adults. A 20-year-old female sought medical attention for vague chest pain and dyspnoea on exertion for 3 months. On radiological investigations was found to have bilateral cystic leisons in the mediastinum. Patient was taken up for bilateral thoracotomy and cyst excision in 2 sessions 3 months apart. Histopathological examination revealed as cystic lymphangioma of mediastinum.

KEYWORDS : Cystic Lymphangioma, Mediastinal Lymphangioma.

INTRODUCTION

Mediastinum occupies the thoracic cavity between the two pleural cavities. It is divided into various compartments housing vital structures. It acts as host to a wide diversity of neoplastic and non-neoplastic lesions based on location and age group. Primary mediastinal masses are uncommonly encountered in clinical practice and remain an interesting diagnostic challenge.

Cystic lesions comprises 15-20% of the mediastinal masses including bronchogenic cyst, thymic cyst, pericardial cyst, neuroenteric cyst and lymphangiomas. Lymphangiomas are rare congenital malformation of lymphatic system accounting for 0.4 – 4% of mediastinal tumors.[1]

CASE REPORT

A 20 year old female presented to outpatient department with history of chest pain and dyspnea on exertion for the past three months.

Clinical examination showed reduced breath sounds in left upper lung zones. Biochemical and cardiological evaluation were found normal. Patient was subjected to plain chest x ray which showed homogenous opacities in right upper, left- middle and lower zones (Fig.1 arrow heads) were noted.

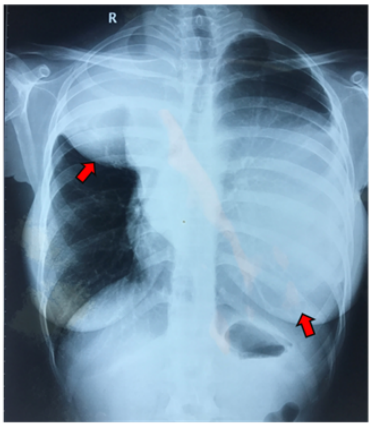

Figure 1 : Chest X ray with bilateral homogenous opacities (arrow heads).

further evaluation with CT thorax revealed multiple well defined cystic lesions (30-74HU) arising from the mediastinum, largest measuring 12x14cm on left and 10x10cm on right side with thin septations extending into superior, anterior and middle mediastinum and right supraclavicular region with minimal compression on brachiocephalic vein and superior venacava [Fig. 2,3]. The adjacent lung fields and cardia was found to be normal.

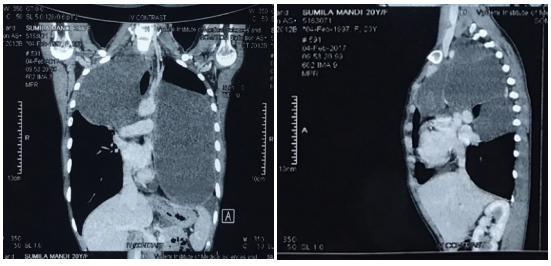

Figure 2, 3: CT thorax showing bilateral cystic leisons with involvement of anterior, superior and superior mediastinum.

SURGICAL PROCEDURE AND INTRA OPERATIVE FINDING:

Patient was taken up for bilateral anterolateral thoracotomy in two sessions, initially on left side to ameliorate the symptoms followed by right side 3 months later. Excision of multiple thin walled cysts done, largest measuring 12cm x12cm on left and 10cm x10cm on right (fig. 4, 5). intercostal drainage tubes were placed.

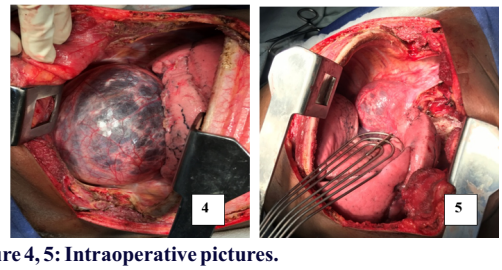

Figure 4, 5: Intraoperative pictures.

Post operatively patient was managed with adequate analgesia and physiotherapy. Good recovery with adequate bilateral lung expansion noted (fig. 6). Intercostal drains removed on post operative day 5.

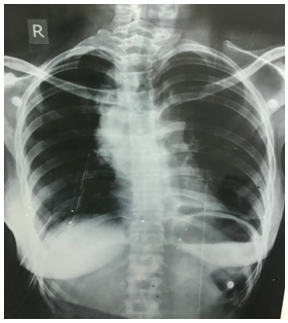

Figure. 6: Post operative cheast X ray with adequate lung expansion.

FLUID ANALYSIS: Straw coloured fliud with predominant lymphocytes and high triglyceride content.

HISTOPATHOLOGICAL EXAMINATION: Fibrocollagenous cyst wall with flattened epithelial cells with lymphatic channels and lymphoid aggregates suggestive of cystic lymphangioma (Fig. 7).

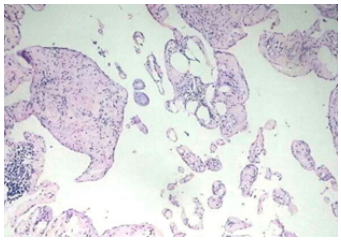

Figure 7: Histopathology of cystic lymphangioma.

DISCUSSION

Mediastinal masses comprise a diverse group, based on the location and age of presentation. Cystic leisons comprises 15-20% of the mediastinal masses including bronchogenic cyst, thymic cyst, pericardial cyst, neuroenteric cyst and lymphangiomas. Cystic Lymphangiomas are benign embryonic malformation resulting from focal proliferation of well-differentiated abnormal lymphatic tissue, where the lymph sacs got separated from the venous drainage system often observed in infants and children.[2,3,4]

Common site of lymphangioma is in the neck (75%), axillary region (20%) and rarely in the mediastinum (1%).[5]

Presenting age is at birth in 50% of cases and 90% cases report within 2 year and rarely in adulthood as in our case report. The presentation is usually asymptomatic detected incidentally on investigation for other illness or with compressive symptoms in 1/3 of cases like breathlessness, chest pain, dysphagia or vascular compression syndrome.

CT is the investigation of choice showing smooth cystic mass and its extent aiding in surgical planning.

Surgical excision is the treatment of choice with removal of entire cyst wall. Adjuvant treatment modalities are radiotherapy or injection of sclerosing agents and bleomycin in the cyst cavity for regression is tried.[6]

Postoperative complications are infection, chylothorax, fistula formation, and injury to nerve, lungs, or major vessels.
With complete tumor resection, the prognosis is **good**, local recurrence may occur (0-13.6%) after partial resection.[7]

CONCLUSION

Cystic **lymphangioma** though rare should be considered in adults presenting with cystic mediastinal leison. Complete cure and symptomatic relief can be achieved by surgical excision and diagnostic confirmation by histopathology.

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