



Multiloculated Thymic Cyst Presenting As Mediastinal mass Mimicking Cystic Thymoma- A Case Report

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Introduction

Thymic cysts are relatively uncommon lesions, accounting for approximately 3% of all anterior mediastinal masses.

Case Report

10 yrs old male child admitted with complaints of recurrent episodes of cough, cold & fever for the past 1 yr. A chest x-ray was taken which incidentally showed a mediastinal mass. Ct scan of chest was done. Superior mediastinal widening was present. Large non enhancing mass lesion measuring 8cm x 7.3cm present in anterior mediastinum causing encasement of major vessels is seen in the mediastinum. Trachea is compressed. Pulmonary artery dilated. Compression of adjacent lung parenchyma was present.

Cytological Findings

USG guided FNAC of the lesion revealed- 50 ml straw colored fluid which on microscopy shows high cellularity composed of lymphocytes, epithelial cells in a background of eosinophilic proteinaceous material (Figure-1,2). A provisional

diagnosis of Thymic cyst /lymphocytic rich thymoma was given. Then, the child was taken up for surgery.

Histopathological Findings

The specimen submitted to pathology contained multiple cysts, largest cyst measuring 1.5x1cm in diameter and smallest cyst measuring 0.5x 0.5 cm in diameter. The specimen on sectioning appears grey brown and was filled with grey brown fluid (Figure-2, 3). Microscopy showed multiple cyst lined by flattened cells. These features were suggestive of multilocular thymic cyst (Figure- 5, 6).

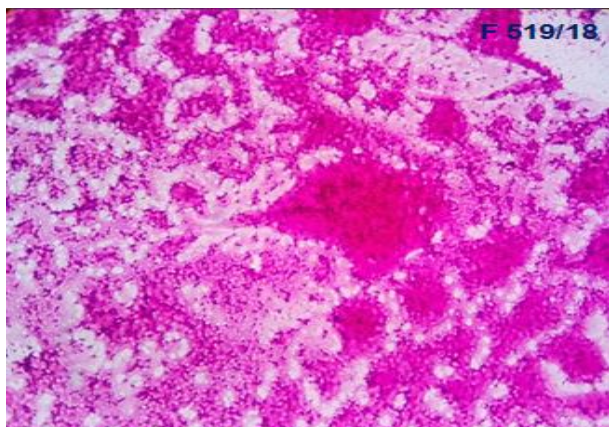


Figure 1: scanner view, 4X, H&E, showing high cellularity composed of lymphocytes and epithelial cells

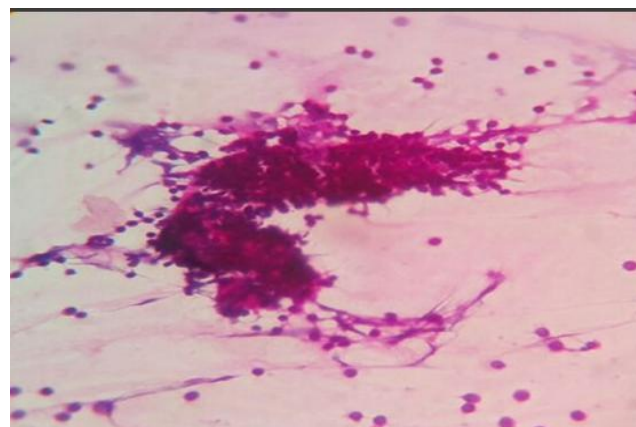


Figure 2: Scanner view, 4X, Giemsa, lymphocytes & epithelial cells in pink proteinaceous background



Figure 3: Gross-External surface appears grey-brown



Figure 4: Gross-Cut surface showing multiple cysts filled with grey brown fluid

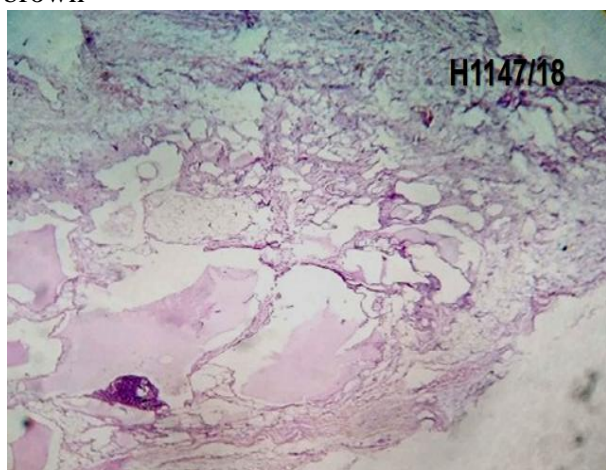


Figure 5: Low power view,10X, H&E showing multiple cyst lined by flattened epithelium

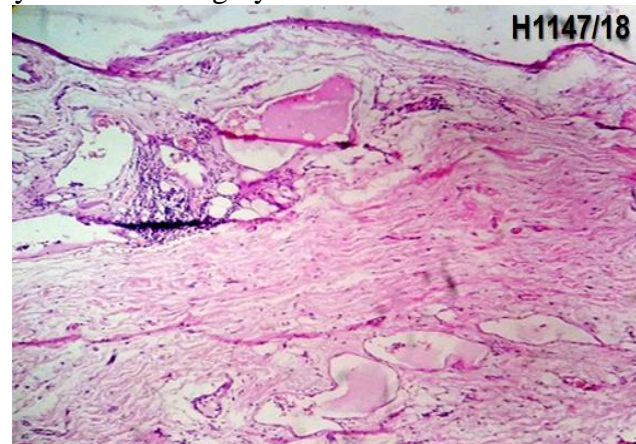


Figure 6: High power view,40X, H&E showing cyst wall

Discussion

Thymic cysts are classified into, congenital and acquired. A congenital thymic cyst is composed of unilocular cyst with a flimsy translucent wall. Thymic tissues adhering to the cyst wall is often

atrophied without inflammation. The cyst is filled with serous fluid which is derived from persistent thymopharyngeal duct.

But, acquired thymic cyst comprises of thick walls multilocular cyst filled with murky fluid and is

related to inflammation. A multilocular thymic cyst can occur at any age. Subsequent to acquired inflammatory process, it originates from dilatation of medullary duct epithelial structures involving Hassall's corpuscles. Reactive lymphoid hyperplasia with germinal centers formation is found frequently in the cysts, which implies that formation of multilocular

Thorough sampling of all thymic cysts should be performed in all cases because, some cases of multilocular thymic cysts are related to thymic neoplasms like thymoma and thymic carcinoma. This is done not only to establish correct diagnosis but also to rule out the neoplasm, particularly in cases where the cyst wall is partially thickened

Conclusion

In a case of mediastinal mass, always the possibility of thymic lesion should be considered, especially in this age group, even though it is a rare entity.

References

1. Strollo DC, Rosado de Christenson ML, Jett JR. Primary mediastinal tumors. Part 1. Tumors of the anterior mediastinum. *Chest*. 1997;112(2):511-22.
2. Suster, S. and J. Rosai Multilocular thymic cyst: an acquired reactive process : study of 18 cases. *Am J Surg Pathol* 1991. 15:388– 398.
3. Fujiwara T, Mizobuchi T, Noro M, Iwai N. Rapid enlargement of a mediastinal mass: thymoma hemorrhage into a thymic cyst. *Gen Thorac Cardiovasc Surg* 2008; 56:472–475.
4. Nomori H, Horio H, Suemasu K, Orikasa H, Yamazaki K, Nakano K. A case of rapidly enlarging unilocular thymic cyst. *J Clin Pathol* 2002; 55:636–637.
5. Saito Y, Murai K, Kawai Y, et al. Spontaneous hemorrhage of a thymic cyst in an adult: report of a case. *Surg Today* 2010; 40:958–962.
6. Fernando SR, Van Tornout F, Ball RY, Wimperis JZ. Spontaneous mediastinal haemorrhage linked with thymic carcinoma and myelodysplasia: a case report. *Cases J* 2009; 2:7821.