



LATERAL CERVICAL THYMIC CYST –AN UNUSUAL CASE

Medical Science

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ABSTRACT

Cervical thymic cyst is an uncommon finding , rarely considered in the differential diagnosis of cystic neck swellings in children. We present a case of 10 year old boy who presented with right side cystic swelling . Surgical excision was done . Microscopic features were consistent with that of thymic cyst .

KEYWORDS

lateral cervical thymic cyst , rare , surgical excision , pediatric

INTRODUCTION

Cystic mass is a common occurrence in the neck. Branchial cleft and thyroglossal duct cyst originating in the embryonic remnants are more commonly seen, whereas the thymic cysts are uncommonly found with incidence of 1% of all cervical cystic masses [1].

The cervical thymic cyst is an uncommon and poorly known malformation of embryological origin [2].

The thymus arises from the third and the fourth pharyngeal pouch during the sixth week of gestation; it descends from near the pyriform sinus, adherent to the carotid sheath and the pericardium, to the anterosuperior mediastinum which is its final resting place during the seventh and the eighth gestational week[3,4]. The remnant tissue can however deposit anywhere along the tract of descent from the angle of the mandible to the manubrium sternum [3].

The other theories explaining the presence of ectopic thymic tissue in the neck include failure of the thymic tissue to descend, persistence of thymopharyngeal duct and presence of degenerating Hassell's corpuscles [4,5].

We report a case of 10 year old boy presented with right side cervical cystic swelling which was confirmed as thymic cyst on histopathological examination.

Case Report

A 10 year old male patient presented for ENT consultation at SMS hospital with right side cystic neck swelling of size approximately 1cm since two years . There were no associated complaints of pain , compressive symptoms or cranial nerve deficit.

The patient had no significant past medical or surgical history.

On examination , there was a right side cystic swelling approximately 1cm of size two fingers below the angle of mandible and 3cm from midline . There were no signs of tenderness or any other sign of inflammation.

USG guided fine needle aspiration cytology revealed benign cystic lesion.

Excisional biopsy of the swelling was planned under general anesthesia.

Right transcervical incision was given. Skin flaps were raised. Intraoperatively the cystic mass was seen deep to sternocleidomastoid muscle and had intimate relationship with carotid sheath which made the excision of swelling difficult . Finally the mass was excised and sent for histopathological examination. Suturing was done in layers and drain was kept which was removed after two days . Post-operatively the child's condition was uneventful .

Grossly , the mass was multilocular cyst of 5cm filled with thick, yellow, inspissated material [FIG. 1].



FIG.1 – EXCISED SPECIMEN

Microscopically , there were features of lymphoid tissue, Hassall's corpuscles, cuboidal epithelium, cholesterol cleft and foci of foreign body giant cells suggestive of thymic tissue [FIG. 2].

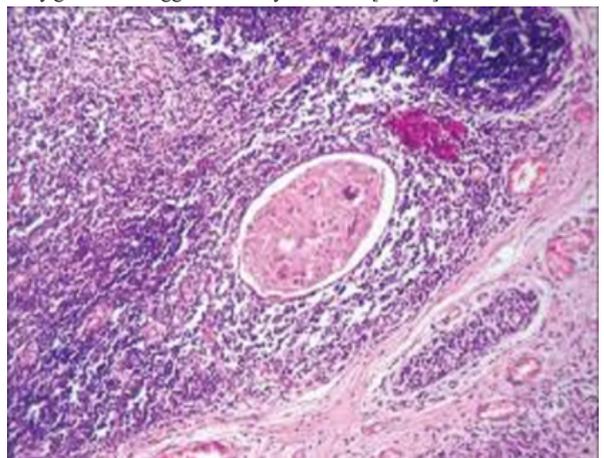


FIG. 2 –Microscopy 10x2 H and E stain reveal lymphoid tissue (arrow down)

Hassal's corpuscles (right arrow) suggestive of thymic tissues.

DISCUSSION

Ectopic thymic cyst was first described by Pollosona and Piery in 1901 when an attempt at partial excision was made [6]. Ectopic cervical thymic tissue can present in three forms: Solid thymic tissue, thymic cyst and mixed lesion [3].

The cervical thymic cyst is a rare entity with only about 100 cases reported in the literature [7]. The ectopic cervical thymic cysts usually present as a painless mass in the age group of 2-13, slight male predominance and for unknown reasons on the left up to 70% [3,4]. But the swelling was present at the right side in our case in contrast to the medical literature.

The usual etiologies of benign lateral neck masses in children are cystic hygromas, branchial cleft cyst, lymphangioma, lymph node, haemangiomas, hemangiolymphangiomas, cervical teratomas, thyroid and parathyroid cyst [8-10]. Age, gender, size of the mass, location, and features of its manifestation helps in the differential diagnosis [8,11].

Investigations include FNAC of the lesion which may reveal Hassell's corpuscles which is an identifiable feature in light microscopy.

Imaging modalities include ultrasound neck which would differentiate a solid from a cystic mass [5]. In our case USG guided FNAC was done which showed benign cystic lesion. MRI is the imaging of choice which shows an isointense signal on both T1 and T2 and the solid thymic tissue to have the same signal intensity as the mediastinal thymus [5].

MRI was not done in our case.

Histopathology of the final specimen is otherwise the Gold standard [5] as was in our case too.

Thymic cysts rarely undergoes malignant transformation.

We report this case to emphasize the importance of considering thymic cyst as a differential while evaluating a child with cystic lateral neck mass.

Surgery is the basic treatment after ruling out the possibility of immunological disturbance especially in young children.

Prognosis is excellent [12].

CONCLUSION

Cervical thymic cysts are rare findings but should be kept in mind with other differential diagnosis of neck swellings in pediatric population. Definitive confirmation is through histopathological examination.

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