

Mature cystic teratoma: unusual presentation as anterior neck swelling

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ABSTRACT

The unusual presentation of a mature mediastinal cystic teratoma as an anterior neck swelling in a 29-year-old Malay woman is reported.

Keywords: anterior neck swelling, mature cystic teratoma, mediastinal cystic teratoma

Singapore Med J 2004 Vol 45(3):130-131

CASE REPORT

A 29-year-old Malay woman presented with an anterior left neck swelling (Fig. 1) of two years duration. This was associated with increasing size over a two-month period. She also had pain radiating to the left side of the neck and occiput. There was no difficulty in breathing, dysphagia, hoarseness of voice or haemoptysis. The swelling did not move with deglutition. The swelling measured 8 x 6 cm in size. Her haemoglobin level was 12.7 gm/dL and free thyroxine T4, and thyroid-stimulating hormone levels were normal.

Ultrasonography findings suggested a malignant lesion in the lower pole of the left thyroid gland, with extension to the superior mediastinum. Computed tomography (CT) showed a well-defined midline swelling anterior to the thyroid gland. It was located more on the left side, and measured 5.9 x 7.5 x 10 cm. The lesion consisted of a central proteinaceous fluid component and a rim of soft tissue. Internal enhancing septations were noted. There was an area with mixed fat and soft tissue components seen within. No calcification was noted. The lesion displaced the trachea to the right. No lymphadenopathy were noted. The CT diagnosis was a cystic mass in the anterior mediastinum/neck with fat and soft tissue components, suggestive of teratodermoid. Fine needle aspiration of the lesion done twice were reported as a benign thymic cyst.

The cyst was resected under general anaesthesia via an external cervical sternotomy approach. On gross examination, the cut surfaces of both the cystic structures showed mostly cystic and focal small solid areas. Two polypoidal structures with fine hairs were seen projecting from the first specimen (Fig. 2). Eight

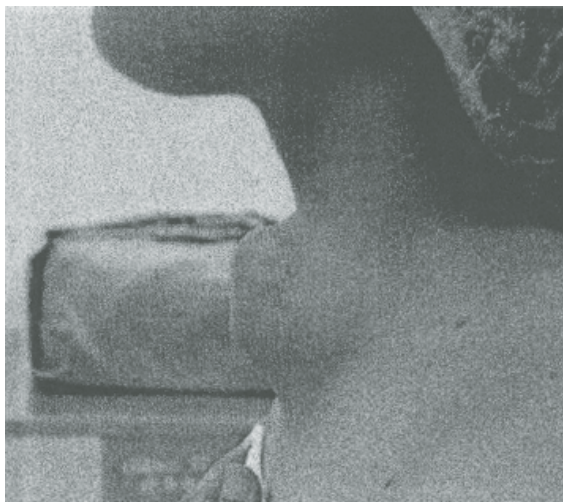


Fig. 1 Photograph shows the patient's anterior neck swelling.

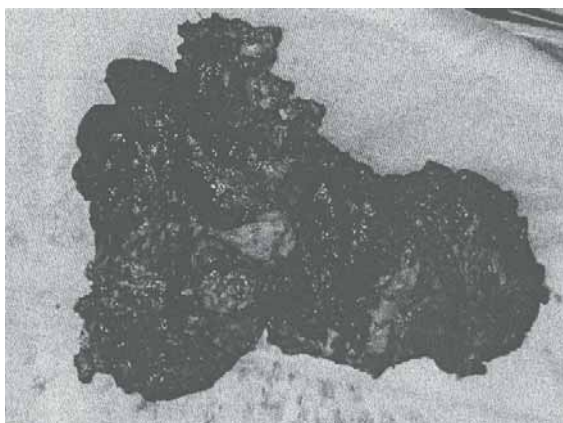


Fig. 2 Photograph shows the gross appearance of the cut surfaces of the excised cystic teratoma.

representative sections were embedded. Microscopic examination revealed fibrocollagenous tissue in the cyst wall with areas of haemorrhage, congestion and haemosiderophages. Inflammatory cells and remnants of thymus tissue (Fig. 3) and pancreatic tissue were also seen in the solid areas (Fig. 4). Sections from the polypoidal projections showed mature cartilage, sebaceous glands, hair follicles, squamous elements, ductal epithelium, adipose tissue, salivary gland tissue, respiratory epithelium and glial tissue (Fig. 5). No immature element was seen. The histological diagnosis was a mature cystic teratoma.

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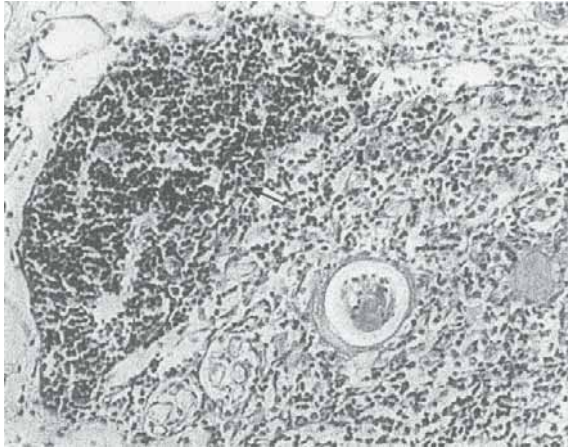


Fig. 3 Photomicrograph shows mature thymic tissue (Haematoxylin & eosin, x 40).

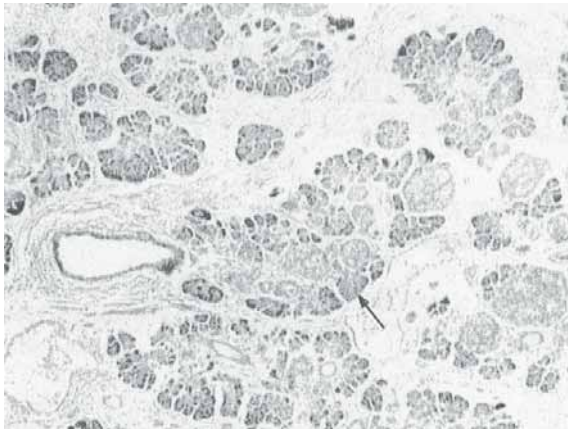


Fig. 4 Photomicrograph shows pancreatic tissue (arrow) (Haematoxylin & eosin, x 40).

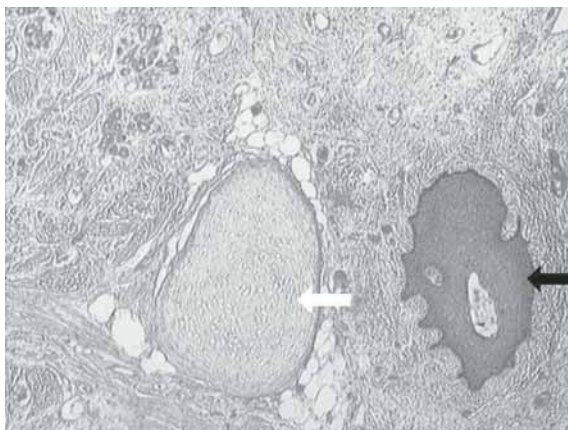


Fig. 5 Photomicrograph shows the three elements of germ cell layer: squamous elements (black arrow), mature cartilage (white arrow), glands and stromal components (Haematoxylin & eosin, x 40).

DISCUSSION

Mediastinal cystic teratomas usually present as anterior or occasionally, posterior mediastinal masses. This patient presented with an anterior neck swelling. Similar cases of benign mediastinal teratomas have also been reported previously^(1,2). Anterior mediastinal masses usually consist of thymoma and thymic cysts, germinal tumours, thyroid and parathyroid lesions, lymphoma, paraganglioma and vascular hamartomatous lesions⁽³⁾. The most common presenting symptoms of patients presenting with mediastinal teratoma are chest, back and shoulder pain. This patients was asymptomatic.

Pathologically, 40%- 60% of mediastinal teratomas contain pancreatic tissue. In this case, thymic tissue, pancreatic tissue, and other mature elements from different germ layers were present. Thymic tissue is often found in mediastinal teratomas. Origin of mediastinal teratoma has been attributed to aberrant tissue lodged in the thymus germ layer during embryogenesis⁽⁴⁾. It has also been hypothesised that thick tumour rich in pancreatic tissue made it possible for the tumours to extend along the cervical region⁽¹⁾.

Teratomas can also be found in extra-thymic locations in women, such as the ovary⁽⁵⁾, and intrapulmonary right lobe⁽⁶⁾. In a large survey of 140 cases of giant mediastinal tumours (mean size of the tumour was 14.6 x 11.2 x 8.9 cm)⁽⁷⁾, 58 cases (41.4%) were teratomas, 32 cases (22.9%) were thymoma and 16 cases (11.4%) were neurogenic tumours.

In conclusion, mediastinal cystic teratoma can also present as an anterior neck swelling. Although it is rare, clinicians should be aware of this condition. We report this case to emphasise the need for early diagnosis by fine needle aspiration biopsy, imaging techniques such as ultrasonography and CT, and clinical examination.

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