Case report - Thoracic general

Epidermoid cyst radiologically mistaken as a left sided subpulmonic effusion

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Abstract

A 33-year-old female had a left sided chest pain for the last 3 months. Chest X-ray showed a left basal opacity. Computed tomography chest suggested a left sided subpulmonic effusion (17.5 × 12.2 × 13 cm) with thick enhanced walls with marked collapse of the left lower lobe and displacement of the heart and mediastinum to the right side. Trial of thoracocentesis was done and it was positive. Trial of intercostal tube insertion was done with a sense of very thick pleura and the patient developed a vasovagal attack. Accordingly, exploratory thoracotomy was decided. Intraoperative assessment showed a huge anterosuperior mediastinal cyst attached to the pericardium and was successfully resected. The pathological findings were compatible with epidermoid cyst.

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1. Introduction

Epidermoid cyst is a very rare condition. It constitutes 90% of the keratinous cysts. The remaining 10% of the keratinous cysts include the pilor or the trichlemmal type of the scalp [1]. Pathologically, epidermoid cysts are lined by a cornified epithelium with a distinct granular layer. It contains a lamellated keratin without calcification [2]. Scarrow et al. stated that thoracic epidermoid cysts must be a consideration for intradural extra medullary lesions of the spinal cord. Complete surgical resection offers an opportunity for good neurologic outcome [3].

2. Case report

A 33-year-old female was presented with a left sided chest pain for 3 months and past history of a intercostal tube on the contralateral side 3 years ago. Plain X-ray chest showed an ill defined left sided basal opacity (Fig. 1). Computed tomography (CT) chest suggested a left subpulmonic effusion (17.5 × 12.2 × 13 cm) with thick enhanced walls, marked collapse of the left lower lobe with contralateral displacement of the heart and mediastinum to the right side. Thoracocentesis yielded a turbid yellowish effusion. An intercostal tube insertion failed due to the impression of the presence of a very thick pleura. Hence, the decision of decortication through a left posterolateral thoracotomy was made. Intraoperative assessment showed a huge cystic tense mass 15 × 10 cm in the anterosuperior mediastinum, attached to the pericardium with no relation to the vertebral column and it was resected intact. The cyst contained a homogenous pink material. The sections prepared revealed fibrous wall lined by a stratified squamous epithelium with a laminated keratin over it (Fig. 2). The pathological findings were compatible with epidermoid cyst. The pathological examination was repeated confirming the previous diagnosis. The postoperative course was uneventful.

3. Discussion

Epidermoid cyst in the mediastinum is an extremely rare condition. It is characterized pathologically by a keratinized epithelium that differentiates it from the bronchoenteric, bronchopulmonary and the oesophageal duplication cysts.
Fig. 1. (a) Preoperative chest X-ray; (b) preoperative CT; and (c) gross picture (10 x 15 cm) tense cystic mass.

Fig. 2. (a) Histopathology (epidermoid cyst). Haematoxin and eosin showing a fibrous wall lined by a stratified squamous epithelium covered with a laminated keratin (x 100); and (b) postoperative chest X-ray complete lung expansion with slightly elevated left copula and blunted left costophrenic angle.
To the best of our knowledge, it is the first time to report a case of an epidermoid cyst in the mediastinum in an intimate relation to the pericardium with no intimate relation to the thoracic spinal cord.

References

