

Giant Presternal Dermoid Cyst: An Adult Case

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Summary

Epidermal cysts are more common above the shoulder and within the face and scalp. The authors report a case of giant presternal dermoid cyst in a 25 year old man. The case illustrates that dermoid cysts can appear in atypical location. Dermoid cysts

should be considered in the differential diagnosis of midsternal lesions regardless of the size and imaging characteristics.

Key Words: Dermoid cyst, Presternal chest wall, Thoracic surgery

Introduction

Dermoid cysts are benign lesions located in the subcutaneous tissue containing epidermis and epidermal appendages. They are commonly found in the head and neck region (1,2). The differential diagnosis includes other subcutaneous cystic lesions such as sebaceous cyst and in the African context, tuberculous abscess.

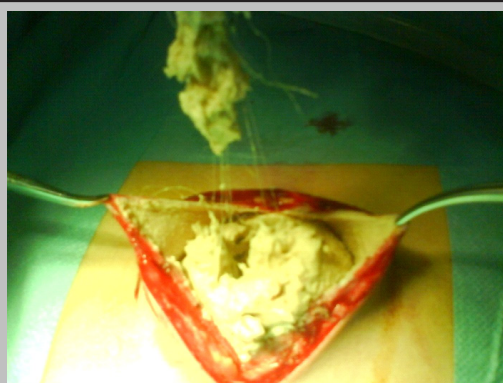
We report a case of an atypical presentation of a giant dermoid cyst in the presternal region of an adult and we discuss aetiopathogenesis and diagnostic difficulties.

Clinical Case

A 28 year-old man with no pathological antecedents was admitted to our hospital for investigation of a mass in the presternal region. The mass had been present for about four years and was increasing in size. Physical examination revealed a mobile and fluctuant cystic mass measuring 11 cm by 10 cm without inflammatory signs on the skin. The chest radiograph was normal while ultrasonography revealed an encapsulated cystic mass of the chest wall without intrathoracic extension.

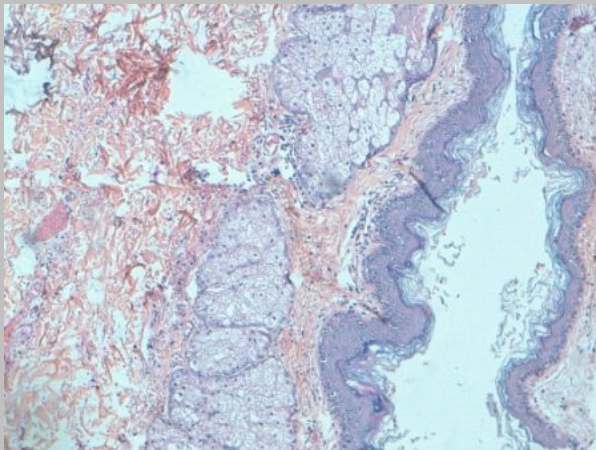
The cystic mass was totally excised via a chest-wall incision. Macroscopically, its divided surface was semisolid and contained hair follicles (Figure 1 and 2).

Figure 1 and 2: The interior of the cyst is semisolid and contains hair follicles.



Histopathology revealed an epidermal structure consisting of sebaceous and apocrine glands and on the inside there were keratin materials and hair shafts (Figure 3). One year after the operation the patient was doing well.

Figure 3: HES x10: Cyst wall had almost normal surface epidermal structures with sebaceous and apocrine glands and the inside contained keratinous materials and tiny hair shafts



Discussion

Dermoid cysts of the head and neck are usually congenital, unilocular dermal-lined structures, and appear at characteristic locations related to embryologic fusion lines such as the midventral suprasternal fusion line in the neck (3, 4). They can also have a traumatic origin by the inclusion of the epidermis into subcutaneous tissue (5, 6). The presternal subcutaneous localization is rare with one case reported in a child and another extending from the mediastinum (7, 8). To our knowledge, our case is the first reported in the presternal subcutaneous region in an adult.

Growth of the lesion appears to be very slow and that is why the patients are often asymptomatic (9). The differential diagnosis includes other subcutaneous lesions including sebaceous cyst or lipoma because of the slow growth and in the African context tuberculous abscess because of the absence of inflammatory skin signs (10, 11). The ultrasonography was useful by depicting a cystic mass eliminating the possibility of a lipoma. Though not seen in our case, ultrasonography may also reveal any intrathoracic

connection of the presternal mass (12). The presence of almost normal surface epidermal structures with sebaceous and apocrine glands on the cyst wall and keratinous materials and tiny hair shafts on the inside are diagnostic histopathological features (11, 13). The treatment of choice is surgical excision and even if total excision is not feasible, the recurrence rate is very low (8).

Conclusion

Although atypical, the dermoid cyst must be considered in the diagnosis of presternal masses.

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