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Case report

Epidermoid cyst: a case report and review of literature

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Abstract

Epidermoid cysts are quite rare in the head and neck region. They present as an asymptomatic swelling. The differential diagnosis of these lesions include dermoid cyst, milia, pilar cyst, etc. Although benign they need to be treated as soon as a possible as they can cause disfigurement of the head and neck region. We report a case of epidermoid cyst in the middle face region which was surgically treated.

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Introduction

Epidermoid cysts are developmental cysts with around 7% occurring in the head and neck region. They may arise due to entrapment of pluripotent cells or as a result of implantation of epithelium [1,2]. Dermod cysts are most commonly seen in the areas of embryonic fusion probably due to sequestration of ectodermal tissue or lack of separation of ectoderm from mesoderm during developmental stages [3]. Meyer in 1955 concluded that there are 3 variants histopathologically, the first being a cavity lined by epithelium and keratinization and having skin appendages in the cystic wall. This is a true dermoid cyst. The epidermoid cyst is the one which is devoid of skin appendages. The third variety is teratoid cyst which may have lining varying from stratified squamous epithelium to ciliated respiratory epithelium containing derivatives of ectoderm, mesoderm and endoderm [4]. Here we report a rare case of epidermoid cyst of middle third of the face. To our knowledge there are very few reported cases in African population.

Patient and observation

A 32 year old male patient came with a swelling in the middle third of the face to our private practice. The patient reported that the swelling was present since 1 year. Extraoral examination revealed that the swelling was soft inconsistency and had smooth surface and measured 1cm x1.5 cm in its greatest diameter. The swelling was freely movable and was not attached to the underlying tissue. The color of the skin was the same as that of adjacent (Figure 1). Intra-oral examination revealed nothing contributory. Aspiration revealed nothing. The lesion was surgically removed and submitted to the histopathologist. The microscopic examination revealed a cystic cavity lined by an atrophic epithelium. A prominent hyperorthokeratnised epithelium was seen. The granular layer was also quite noticeable and keratin was filled in the cystic lumen (Figure 2, Figure 3). No skin appendages were present in the cystic wall. The diagnosis was confirmed for epidermoid cyst. The patient was followed-up for 2 years and was asymptomatic.

Discussion

Epidermoid and dermoid cysts are one of the very rare benign lesions occurring in the head and neck region accounting for nearly 7%. While the etiology of epidermoid cyst is due to follicular infundibulum, traumatic implantation or entrapment of epithelial remanents during embryonic fusion, the dermoid cyst is due to only entrapment of epithelium during developmental stages [5]. The distinction between epidermoid and dermoid cyst is made only on the basis of histopathology. The chief difference between them being presence or absence of skin appendages in the cystic wall in case of dermoid cysts. These cysts usually remain asymptomatic and patients seek medical advice only after it has increased to a considerable size. Although, epidermoid cysts are benign there are few cases reported of transformation into malignancies [6-8]. Epidermoid cysts may be associated with certain syndromes such as Gardner's syndrome [9]. Ultrasonography can be of some help in the diagnosis and treatment planning of epidermoid cysts [10]. The treatment of choice is surgical excision and the diagnosis is confirmed on histopathological basis.

Conclusion

We report this case of epidermoid cyst of the mid face region. Although it is benign but it is different compared to the dermoid cyst. The treatment is surgical excision. Its recurrence is rare.

Competing interests

The authors declare no competing interests.

Authors' contributions

All authors have read and approved the final version of the manuscript.

Figures

Figure 1: Examination revealed swelling of 1x1.5cm in the middle third of the face
Figure 2: Atrophic epithelium lining the cystic cavity. Hyperorthokeratinisation is prominent (H&E, X200)
Figure 3: Keratin filling the cystic lumen. Prominent granular layer (H&E, X200)

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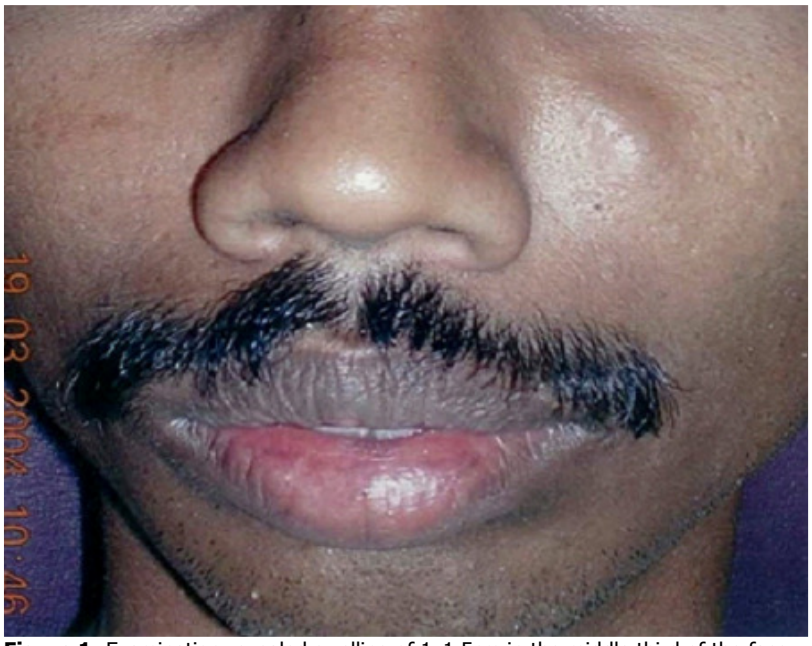

Figure 1: Examination revealed swelling of 1x1.5cm in the middle third of the face

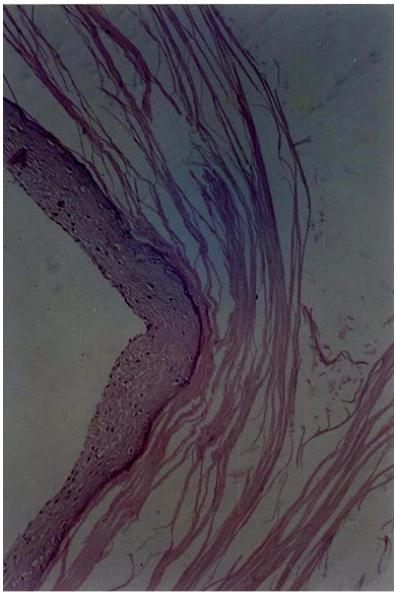

Figure 2: Atrophic epithelium lining the cystic cavity. Hyperorthokeratinisation is prominent (H&E, X200)

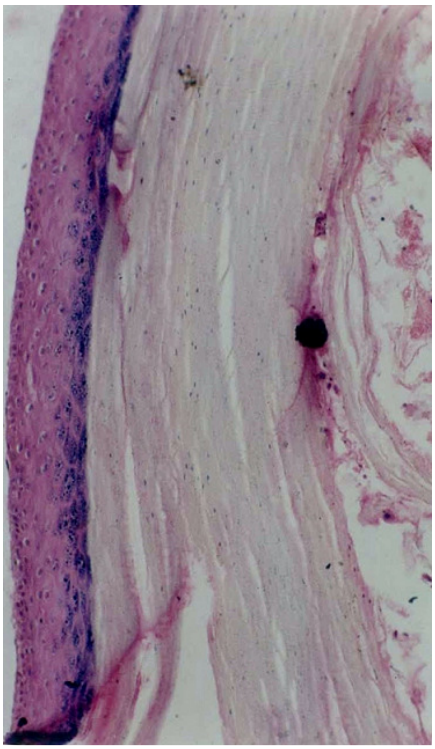

Figure 3: Keratin filling the cystic lumen. Prominent granular layer (H&E, X200)