

Epidermoid cyst over periorbital region- case report

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Abstract

An epidermoid cyst is filled with keratin flakes or debris and its wall is composed of keratinized stratified squamous epithelium. These are developmental cysts although most cases are acquired and secondary to traumatic or iatrogenic implantation of epithelial cells into the dermal or subcutaneous layer or from obstruction of a pilosebaceous unit in the hair follicle.

Typically, an epidermoid cyst presents as an asymptomatic, slow-growing, fluctuant to firm, dome-shaped mass that is not attached to the underlying structure. Epidermoid cysts occur mainly on hair-bearing areas. An epidermoid cyst may be cosmetically unsightly and socially embarrassing if it occurs in an exposed area. If removal of an epidermoid cyst is desired for cosmetic purposes or complications, complete excision of the cyst contents and cyst wall is the treatment of choice. Incomplete excision may lead to chronic inflammation and recurrence. This paper describes a case of an epidermoid cyst over maxillofacial region.

Keywords-*epidermoidcyst, cutaneouscyst, keratin, sebaceous cyst.*

Introduction

An epidermal cyst is derived from epidermis, and is formed by cystic enclosure of epithelium within the dermis that becomes filled with keratin and lipid-rich debris. The term sebaceous cyst is often used to refer to either: Epidermoid cysts (also termed *epidermal cysts, infundibular cyst*), or Pilar cysts[1] (also termed *trichelemmal cysts*), not sebum, and neither originates from sebaceous glands (epidermoid cysts originate in the epidermis and pilar cysts originate from hair follicles)& these types of cyst contain keratin. True" sebaceous cysts are the cysts which originate from sebaceous glands and which contain sebum and therefore should be avoided since this is misleading [2] In practice, however, the terms are still often used interchangeably.

Epidermoid cysts are among the most frequent skin lesions that are removed in an outpatient clinic. These are commoner than is realized because of minor

inconvenience and are ignored by the patients[3] They are usually painless and occur mostly in adults involving the area of hair-bearing skin. Surgical excision is the treatment of choice.

Case report

A 49-year-old male patient reported with a swelling on the left lateral side of the eye below of the frontozygomatic suture of size 2 X 2 cm². The swelling was soft, smooth, cystic, non-tender with limited mobility. A provisional diagnosis of dermoid/epidermoid or sebaceous cyst was made (Fig. 1). Ultrasonography showed a well encapsulated ovoid cystic lesion of 12 mm x 10 mm size. Informed written consent obtained. The lesion was excised and sent for histopathologic examination. On sectioning a whitish cheesy material, probably keratin material was found. Histopathologic examination of H-E stained section showed skin epidermis and keratinized cystic epithelium with keratin flakes. A confirmatory diagnosis of Epidermoid cyst was made. The epidermoid cyst was enucleated and was closed in two layers (fig2). The deeper layer was closed with 3-0 vicryl and the skin was closed by subcutaneous sutures using 5-0 prolene (fig3). The healing was uneventful and the sutures were removed after 10 days. No recurrence was seen in a follow-up period of 6 months.

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Fig. 1 : Preoperative: Presence of cystic swelling



Fig. 2 : Intraoperative: Enuclation of the cyst



Fig. 3 : Postoperative: Closure done

Discussion

An epidermoid cyst is a dome-shaped cystic malformations lined with squamous epithelium. These cysts are the result of implantation of epidermal elements in the dermis^{4,5}. Several theories have been proposed to explain the development of dermoid cysts. They may result from entrapment of ectodermal tissue of the first and second branchial arches during fetal development. They could represent a variant form of the thyroglossal duct cyst. Another reason for the occurrence of epidermal cysts includes surgical or accidental events could lead to traumatic implantation of epithelial cells into deeper tissues.

Epidermoid cysts usually vary in size from 1cm to 5cm or more in diameter. They are usually solitary or found in groups. It is skin coloured & usually painless however may become red and painful if infected. They can develop at any age but are usually first noticed in adult life^[6]. Men are affected more often than women in the ratio 3:1^[7]. The head and neck sites affected most frequently with cutaneous cysts were the scalp (34%), neck (18%), periorbital area (17%), cheeks & lips (16%), periauricular area (9%), and nasal area (including forehead, 6%)^[4]. In the facial region, the most common location is the lateral eyebrow. They are also found on the trunk (especially on the back) and scrotum.

Epidermoid cysts occur in the head and neck region with an incidence ranging from 1.6% to 6.9%^[7]. They represent less than 0.01% of all cysts of the oral cavity. 91.4 per cent of the lesions are located in the head or neck region^[8]. The differential diagnosis includes branchial cleft cysts, calcinosis cutis, sebaceous cyst, Gardner's syndrome, lipoma, milia, nevoid basal cell carcinoma, pachyonychia congenita and pilar cyst^[9,10].

Most of the sebaceous cysts don't cause problems or need treatment. But if they're a cosmetic concern or they rupture or become infected, they're usually surgically removed. If a cyst becomes infected, a course of antibiotics may be needed. Epidermoid cysts are almost always noncancerous, but in rare cases, they can give rise to skin cancers. Because this occurs so seldom, epidermoid cysts usually aren't biopsied unless they have unusual characteristics that suggest a more serious problem. However, in older patients who have had an epidermoid cyst of relatively longer duration on the face or scalp with a recent change in character like the increase in size and ulceration, carcinoma should be suspected¹¹. The occurrence of carcinoma within an epidermoid cyst is of sufficient rarity. The incidence of this change varies from 1.5 to 10%^[12,13,14]. An obtrusive or unsightly cyst can be removed under local anaesthesia. An incision is made on the skin overlying the cyst, blunt dissection is carried out and the sac is removed. While making an incision over the head and neck region care should be taken that the incision should always follow the natural lines of creases. In our case, since the epidermoid cyst was present at a level below the lower eyelids, thus the incision was made taking care that it should be parallel with the lower lid crease and the zygomatic branch of the facial nerve. Closure of any wound on the facial region bears utmost importance because of the esthetic reasons thus in our case closure was done by using subcutaneous

sutures. While removal of the epidermoid cysts care should be taken that it is removed completely. If a small part of the cyst is left behind as is sometimes unavoidably the case it can recur. Recurrence following excision of an epidermoid cyst should arouse suspicion regarding its possible malignant nature and indicate a further wide excision.

Conclusion

The management of epidermoid cysts over the facial region like elsewhere in body is same however cyst over the facial region should be done more cautiously as face being the esthetic zone, demands good scar.

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