ORIGINAL RESEARCH PAPER

Volume-7 | Issue-4 | April-2018 | PRINT ISSN No 2277 - 8179

INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

A RARE PRESENTATION OF PILAR CYST ON NECK – A CASE REPORT.

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ABSTRACT

Cutaneous cysts are frequent benign head and neck lesions. Trichilemmal or pilar cysts are common intradermal or subcutaneous cysts, occurring in around 5-10% of the population.1 Trichilemmal cysts occur most preferentially in areas with dense hair follicle concentrations; therefore, 90% occur on the scalp, but may be seen infrequently on the face, neck, trunk, and extremities.

Trichilemmal cysts commonly manifest as skin-colored, smooth, mobile, firm, and well-circumscribed nodules. In 2% of trichilemmal cysts, wherein single or multiple foci of proliferating cells lead to tumors, are called proliferating trichilemmal cysts. Proliferating trichilemmal cysts are gradually enlarging (up to 25 cm in diameter), exophytic nodules which occasionally ulcerate. Although biologically benign tumors, they may be locally aggressive. Recurrence and metastases have been observed in literature, with rare malignant transformation. Thereby , we present a case of trichilemmal cyst reported to our department with a rare occurrence on neck.

KEYWORDS

Pilar cyst, Trichilemmal cyst, Cutaneous cyst.

INTRODUCTION

Cutaneous cysts are frequent benign head and neck lesions. The most common cutaneous cysts are the retention cysts from skin appendages, with developmental or embryonic cysts presenting much less routinely.[1] Cysts of skin appendages are labeled as sebaceous cysts most commonly. The sebaceous cyst is preferably described as an epidermal cyst or trichilemmal (pilar) cyst.[2] Sweat gland elements may also produce cysts which are classified as hidrocystomas.[1]

According to Fitzpatrick,[3] a pilar cyst is most often seen on the scalp in middle-age females. It occurs most frequently as multiple smooth, firm, dome-shaped nodules that are not connected to the epidermis. The thick cyst wall is composed of stratified squamous epithelium with a palisaded outer layer resembling that of the outer root sheath of hair follicles, and an inner corrugated layer. The cyst contains very dense keratin; which is often calcified, with cholesterol clefts. If the cyst ruptures, it may be inflamed and painful.

Trichilemmal cysts are mostly benign. They may be sporadic or may be autosomal dominantly inherited. Although biologically benign tumors, they may be locally aggressive. Recurrence and metastases have been observed, with rare malignant transformation. Trichilemmal cysts are diagnosed and treated by maxillofacial surgeons around the globe on an regular basis. Nevertheless, there is a notable paucity of comprehensive review in the literature on the incidence of cysts occurring on non-scalp region encountered in routine clinical practice. This paper illustrates the management of trichilemmal cyst encountered at our institute on surface of neck.

CASE REPORT

A 42 year old male patient was referred to Maxillofacial department with a complaint of lump over neck since past 3 months. Patient was apparently doing fine when a month back he noticed increase in size of swelling thereafter which he reported to our hospital opd from where patient was referred to our department.

Examination revealed palpable, non-tender, non-fluctuant swelling over right side of neck just below right submandibular region of approx. 1x1cm^2 as seen in Fig 1. Swelling was painless and was not fixed to underlying structures. Ultrasonography was suggestive of cystic lesion and FNAC revealed epidermal cyst.

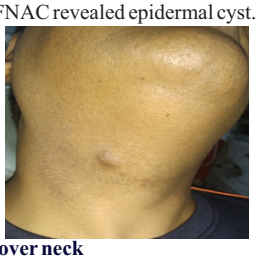

Figure 1 : Lump over neck

Based on clinical findings and supporting investigations, decision was taken to excise the cyst. Incision was taken in resting skin tension line and blunt dissection was done around cyst and was removed in-toto (Fig.2). Wound closure was done in layers using 3-0 vicryl and 4-0 ethilon. The sample was sent for histopathological examination which revealed it to be as trichilemmal cyst (Fig. 3).

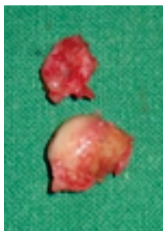

Figure 2 : Enucleation of cyst

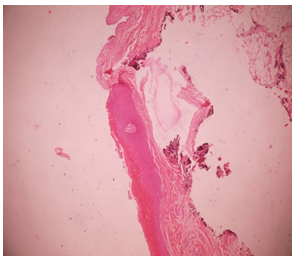

Figure 3 : Histopathological specimen showing features of pilar cyst.

DISCUSSION

Trichilemmal or pilar cyst are common intradermal or cutaneous cyst, occurring in around 5-10% of the population.[4] Greater than 90% of trichilemmal cyst occur on the scalp, where these are the most common cutaneous cyst.[5] Trichilemmal cyst are mostly benign. They may be sporadic or autosomal dominant.[6] They contain keratin and its breakdown products and lined by walls that resemble the external (outer) root sheath of the hair. Trichilemmal cyst are solitary in 30% and multiple in 70% of patients.[7]

Trichilemmal cyst may manifest as red, swollen, and tender if they have been ruptured or become infected. The proposed clinical criteria for recognizing autosomal dominant hereditary cases include the diagnosis of trichilemmal cyst in 2 or more first- or second-degree relatives, with age of diagnosis younger than 45 years, and diagnosis of multiple or large (>5 cm) cysts or rare histologic features such as proliferating and ossifying cysts. A proliferating trichilemmal cyst presents as a slow-growing nodule. They occur more commonly in women, with a mean age of 65 years. Rapid growth is an unusual sign and may be a sign of infection or malignancy. Other suspicious features

may include nonscalp location, size larger than 5 cm, and an infiltrative growth pattern.[8]

Erroneously known as sebaceous cysts, trichilemmal cyst are lined by stratified squamous epithelium similar to that in the isthmus of the hair follicle. This is the segment between the insertion of the erector pili muscle and the sebaceous gland duct, where the inner root sheath does not exist. The keratinization is similar to which occurs in the outer root sheath.[7] The squamous epithelium undergoes "trichilemmal keratinization" or rapid keratin formation without a granular cell layer, thereby resulting in a cyst wall without a granular cell layer.

Both epidermoid and pilar cysts are smooth round lumps which you see and feel beneath the skin surface. They are very common. Often they are small (pea size) but sometimes may gradually increase in size over months to become a few centimetres in diameter. Both look very similar to each other but can be distinguished from each other if the cells that form the cystic sac are observed under the microscope. The epidermal cyst derives from epidermis, and is formed by the cystic enclosure of epithelium within the dermis eventually filled with keratin and lipid-rich debris. It occurs mostly in young to middle-age adults. It is usually solitary and connects with the surface through keratin-filled pores. Dermoid cysts lack any entry port and have predilection for lines of embryonic fusion. Younger patients predominantly present with dermoid cyst. A pilar cyst is most oftenly seen on the scalp in middle-age females. It frequently manifest as multiple smooth, firm, dome-shaped nodules that are not connected to the epidermis. The cyst contains very dense keratin; which is often calcified, with cholesterol clefts. If the cyst ruptures, it may become inflamed and painful.

Definitive treatment is complete excision of the cyst. Several methods can be used to surgically excise these cysts. A small linear incision, or an elliptical excision or a circular dermal punch incision are effective ways to excise the cysts. If the cyst ruptures, deferring the excision until the inflammation is reduced , decreases the likelihood of spreading infection and associated wound healing problems. Most proliferating trichilemmal cysts are treated with complete surgical removal. In occasional instances when multiple proliferating trichilemmal cysts require several local excisions, additional radiotherapy and/or chemotherapy may be considered.[9,10] Although most are asymptomatic, cyst infection and rupture can occur. Malignant transformation is exceedingly rare but may occur.

CONCLUSION :

Remote possible diagnoses must always be kept in the mind of maxillofacial surgeons and should be included in the differential diagnosis of these lesions especially in cases with atypical clinical presentation. Maxillofacial surgeons often encounter cutaneous cysts of the head and neck, and they must be familiar with the clinicopathologic characteristics of the lesion.

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