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Multiple giant trichilemmal cyst mimicking proliferating pilar tumors in a Moroccan patient

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Abstract
Trichilemmal cyst (TC) also known as “pilar cyst” is a common adnexal skin begnin tumor and filled with cytokeratin that arises from a hair follicle. They usually affect adult women. Atypical cysts (multiple nodules, ulcerated, rapidly growing) can mimic malignant proliferating pilar tumors (PPT). cysts are most often found on the scalp. The cysts are externally smooth, mobile, a protein family found in hair, nails, and skin. We report a unique case of 15 pilar cyst in an adult patient mimicking a PPT.

A 47-year-old male Moroccan patient presented with a 6-year history of multiple nodules of the scalp, the lesions had a significant aesthetic impact on the patient. A surgical excision was performed and histopathological examination confirmed the diagnosis of begnin pilar cyst. Trichilemmal cyst are frequent adnexal tumor with no risk of malignant transformation. However, proliferating trichilemmal (pilar) cysts are dermal neoplasm locally invasive with a metastatic potential. A good clinical and histopathological examination is therefore necessary to make the correct diagnosis.

Keywords: trichilemmal cyst, proliferating pilar tumor, adnexal skin tumor

Introduction
Trichilemmal cyst (TC) or pilar cyst are a begnin adnexal skin tumor, mainly located on hair bearing areas such as the scalp, pubis, vulva, thighs, axillar region neck and trunk. They may be autosomal dominantly inherited or sporadic [1]. They affect 5-10% of the population with a female predominance [2]. We report a unique case of multiple giant trichillemal cyst masquerading a proliferating pilar tumors (PTTs) in a Moroccan patient.

Case report
A 47-year-old male Moroccan patient presented with a 6-year history of asymptomatic slow growing swelling on the scalp. Multiple white and yellowish nodules tend to appear gradually and involved different sites on the scalp (temporal, parietal, and occipital regions). The lesions were very embarrassing from an aesthetic point of view with significant psychological impact on the patient (low self-esteem, depression). Our dermatological examination revealed 15 firm cyst with different sizes: the largest was measuring 6 cm × 5 cm and smallest around 1 cm × 1 cm in diameter (figure 1). A computed tomography was performed and showed a homogeneous individual multiple cystic mass with no bone involvement. Our approach was to excise one lesion under local anaesthesia (2% lidocaine adrenalin) and send the specimen to the pathology department (figure 2). The histopathological examination confirmed the diagnosis of trichilemmal cyst: hyperkeratosis with stratified squamous epithelium lining (corneal layer only) with dense laminated eosinophilic keratin (figure 3). All the cysts were excised in different sessions under local anaesthesia with a good aesthetic outcome (figure 4).

Discussion
Trichilemmal cysts arise from the epithelium located between the sebaceous gland and the arrector pili muscle. They most common location is the scalp (90% cases) [3]. This condition can be transmitted through an autosomal dominant inheritance. Hence, a family history can be found. Sporadic cases have been described too, they affect mainly young women.

From a clinical point a view, pilar cyst appear as flesh-colored, smooth, firm and well-circumscribed nodules. They are usually asymptomatic unless they calcify or rupture their contents leading to inflammatory process and pain in the affected site [4]. The TC rate of growth is very slow; it takes several years to grow to a big size, in some cases overpressure or bony prominence might lead to pain.

The diagnosis is made based on clinical examination and histopathological finding: squamous epithelium composed of swollen pale keratinocytes which increase in height and transform into eosinophilic staining keratin, the granular layer is absent, while the fibrous capsule of the cyst is composed of small cuboidal basal epithelial cells in a palisade arrangement [5].

Radiological studies can be performed in order to exclude other diagnosis in front of atypical lesions (large cyst, painful ulceration or lesions that grows fast). CT scan or MRI can both evaluate the extent of the nodules in deep soft tissue or bone invasion. Ultrasonography is a quick, cheap and less invasive imaging technique with a good sensitivity.

Complications such as infection and malignant transformation (mitotic figures along with cell atypia and necrosis) are extremely rare. The main differential diagnosis is the proliferating trichilemmal cysts. They represent less than 3% of all cases of pilar cysts, they are larger than then TC, locally aggressive with ulcerative evolution, they are mainly seen in elderly patient [6].

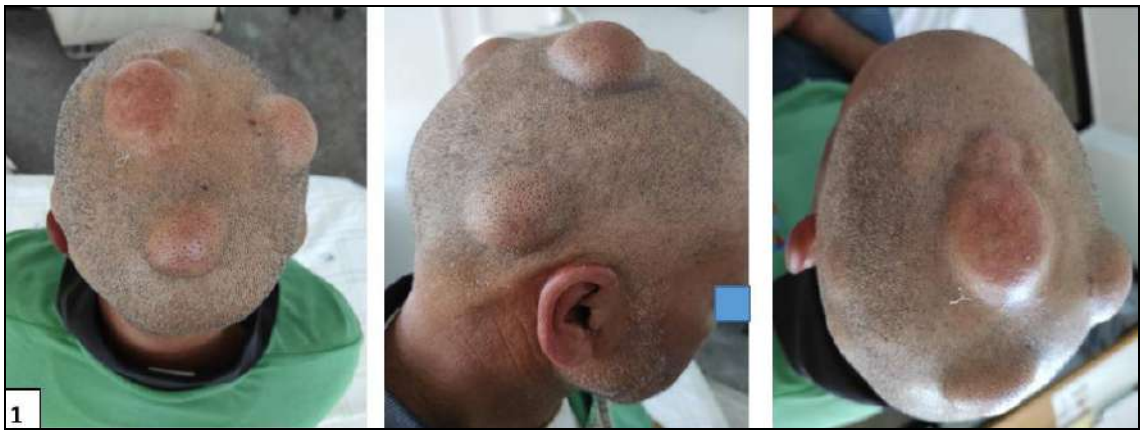

Fig 1: Multiple flesh colored nodules of the scalp in a 47-year –old patient

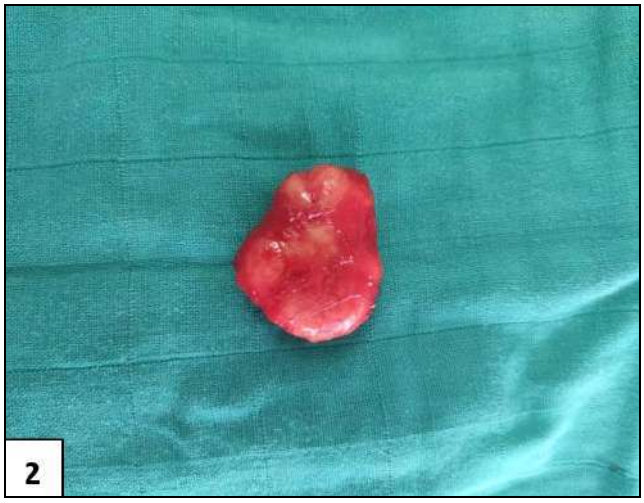

Fig 2: Macroscopic view of the excised cyst

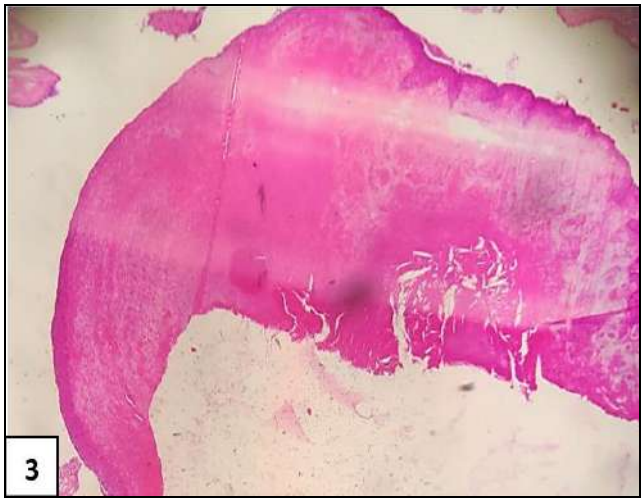

Fig 3: Hyperkeratosis with stratified squamous epithelium lining (corneal layer only) with dense laminated eosinophilic keratin

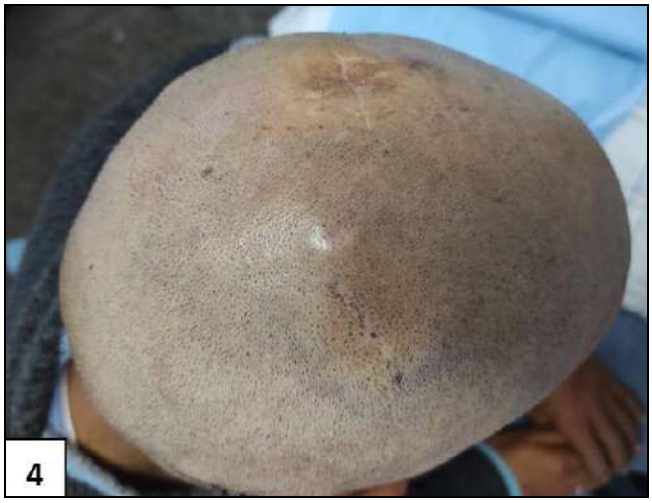

Fig 4: Evolution at 3 months after surgical excision of all the pilar cysts

Conclusion

In conclusion, TC is a begnin condition. However, in case of multiple large cyst (such as our patient) proliferating tumor is the first diagnosis to evoke. Surgical treatment with histopathology examination are therefore necessary. A good cooperation of the dermatologist, surgeon and the histopathologist is essential to make the correct diagnosis and treatment.

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