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RESEARCH ARTICLE

FIBROFOLLICULOMA: CASE REPORT

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Abstract

Introduction: Fibrofolliculoma usually is a clinically asymptomatic multiple connective tissue tumor, appearing perifollicular, skin-colored and located on the head or neck. and it usually arises in the form of multiple lesions, but rarely as a solitary lesion.We report a case of solitary fibrofolliculoma on the scalp.

Case Report:A 67-year-old female presented with an asymptomatic mass on the scalp. The lesion appeared as a flesh-colored, dome-shaped, smooth nodule being the size of 5 mm in diameter, with a smooth surface, and located on the scalp. Shave excision was performed, and the diagnosis of fibrofolliculoma was confirmed finally through histological exam.

Conclusion: Solitary fibrofolliculoma is rare, and generally diagnosed by histopathological exam after excision and biopsy, and one can very easily miss the diagnosis with a simple dermatologic examination when the patient presents with an asymptomatic lesion arising in the scalp. Fibrofolliculoma should be included in the differential diagnosis when a localized mass lesion arising in the scalp is encountered.

Introduction:-

Fibrofolliculoma usually is a clinically asymptomatic multiple connective tissue tumor, appearing perifollicular, skin-colored and located on the head or neck. Multiple fibrofolliculomas generally are inherited as an autosomal dominant trait and share clinical characteristics of Birt -Hogg-Dubé (BHD) syndrome, which is associated with multiple fibrofolliculomas, acrochordons, trichodiscomas, and internal neoplasms [1, 2].

Fibrofolliculoma, rarely presents as a solitary lesion, since being firstly reported in 1984 [3]. Solitary forms are usually unassociated with other cutaneous abnormalities with typically nonhereditary [4]. Only 12 cases have, to date, been previously published in the literature [3– 5]. Herein, we presented the clinic-histopathologicalfeatures and surgical treatment of a rare solitary fibrofolliculoma located on the scalp of a 67- year-old women.

Case Report:

A 67-years-old woman presented with an asymptomatic, flesh-colored lesion on the scalp. The lesion had slowly increased in size over 2 months. No similar lesions were found on other parts of the body. Her medical and family histories were unremarkable, and she had experienced no triggering trauma.

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Dermatologic examination, found a single rounded flesh-colored papule on the scalp with a smooth surface measuring 5 mm in diameter, painless [Figure 1].

Dermoscopic examination showed a dome-shaped lesion with central keratin surrounded by hairpin vessels [Figure 2].

The lesion was removed by shave excision after local anesthesia.

The biopsy was sent for histopathologic examination.

Histological examination revealed a well-defined tumor mass involving a group of adjacent pilosebaceous follicles and proliferative epithelial cords and spurs in the center, with a surrounding fibromucinous mesenchymal component. Characteristic proliferating infundibular epithelial strands with perifollicular fibrous reaction anastomosing to form an epithelial network were also observed (Fig. 3). Pathological examination confirmed the diagnosis of fibrofolliculoma.

Two weeks after the surgery, the patient had no particular complain. During the 3-month follow-up, no signs of recurrence or new lesions appeared.

Figure 1:- Clincal image of a single rounded flesh-colored papule on the scalp with a smooth surface measuring 5 mm in diameter.

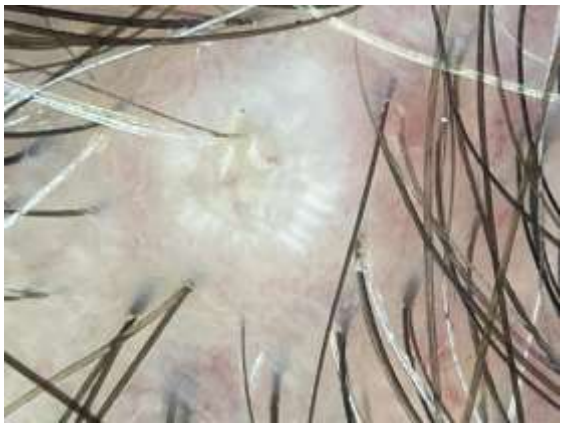

Figure 2:- Dermoscopic appearance showing a dome-shaped lesion with central keratin surrounded by hairpin vessels.

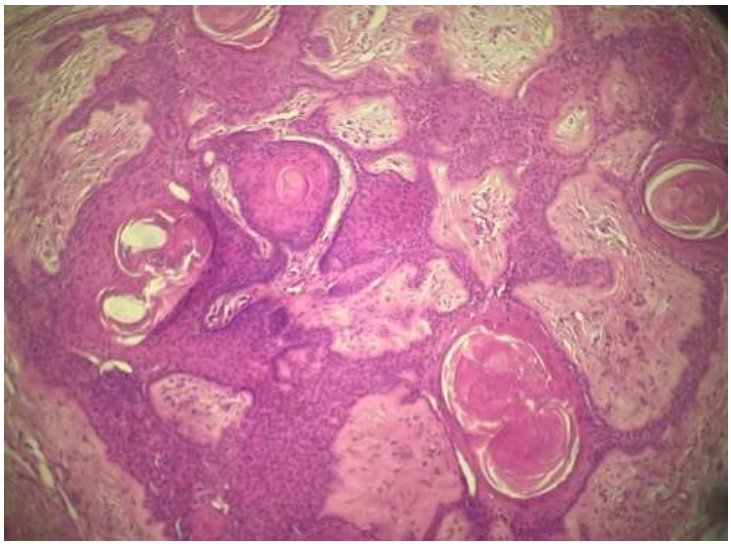

Figure 3:- Histopathological photograph showing a well-defined benign tumor, centred by an infundibular invagination, onto which immature follicular structures are branching in the form of small nodules of basaloid cells, devoid of cytonuclear atypia and sometimes centred on keratin lamellae.

Discussion:-

Fibrofolliculomas are benign, perifollicular, connective tissue tumors that commonly occur in multiple formations and have an autosomal dominant inheritance . Although most multiple fibrofolliculomas have been reported in association with other clinical findings , such as Birt –Hogg–Dubé syndrome ,[1] sporadic cases without associated clinical findings have also been reported. [6,4] since solitary fibrofolliculoma is extremely infrequent and definitively diagnosed only by histological results, it can be easily overlooked or clinically misdiagnosed.

Clinically, fibrofolliculoma is asymptomatic and presents with 2-4 mm lesions that are yellow-white to skin colored, smooth, and dome-shaped. The lesions look quite similar to those of other follicular neoplasms that involve mesenchymal proliferation, such as perifollicular fibroma and trichodiscoma, whose origin is purely adnexal mesodermal, without epithelial proliferation, or angiofibroma.[7]In the spectrum of benign follicular neoplasms, fibrofolliculoma appears to be intermediate between perifollicular fibroma (purely of mesodermal origin) and trichofolliculoma (purely of epithelial origin).[3]Therefore, a fibrofolliculoma is sometimes thought to be indistinguishable from these. However, a fibrofolliculoma frequently has visible central hair, keratotic plug, dell, or umbilication, whereas trichofolliculoma has features of telangiectasia and peripheral location of hair that may help distinguish it from fibrofolliculoma.[8].

Generally, the age of onset for solitary fibrofolliculoma is the sixth decade, in contrast to the much earlier onset (in the third decade) of the multiple hereditary form.[3]However, reports of solitary fibrofolliculoma in Korea reveal that the lesion has arisen. in patients between 1 and 36 years of age, indicating that the lesion can arise in patients at any age. [9,10]

Because patients have no recognizable or systemic symptoms and because solitary fibrofolliculoma is rare, the diagnosis can be difficult. It can be easily overlooked unless one carefully examines the shape of the lesion and recognizes its distinct configuration.

Histopathologically, fibrofolliculoma has distinctive features with minor variations. The center of the lesion shows a hair follicle that is sometimes dilated and contains keratin material with a moderately well-circumscribed thick mantle of fibrous tissue surrounding it. The infundibular follicular epithelium extends out into this fibrous mantle forming epithelial strands, cords, or spurs. The infundibular follicular epithelium may just extend outward, it may rejoin the follicle and adjacent skin, or it may anastomose with each other. In the three-dimensional view, the infundibular follicular epithelium actually forms septa within the fibromatous mass, forming an "epithelial sponge." Special staining shows that the fibrous tissue stroma contains a high content of mucin substances and extremely sparse or absent elastic tissue in contrast to adjacent normal dermis. [1,2]

Surgical excision is usually chosen for the skin fibrofolliculomas in the first operation for pathological diagnosis. The CO_2 laser, or erbium-doped YAG laser, might be a better choice for multiple fibrofolliculomas or recurrent lesions [12, 13].

Conclusion:-

In conclusion, a solitary fibrofolliculoma is generally diagnosed by histopathological exam after excision and biopsy, and one can very easily miss the diagnosis with a simple dermatologic examination when the patient presents with an asymptomatic lesion arising in the scalp. Because most solitary fibrofolliculomas do not recur after a simple excisional procedure, one should operate on patients with asymptomatic scalp lesions, after confirming the histopathologic diagnosis; the pathologist should be able to differentiate the lesion from malignant conditions such as basal cell carcinoma. Also, when this type of a lesion in the scalp is observed, a diagnosis of fibrofolliculoma should be considered, despite its rare occurrence [11].

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