Solitary Skin Colored Facial Nodule

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A woman in her late 50s presented with an asymptomatic slow growing skin colored nodule on the face for the past 6–8 months [Figure 1]. It had developed spontaneously and was non-tender with soft-firm consistency. The rest of the cutaneous and systemic examination was normal. Complete excision and histological analysis revealed numerous cystic and ductal structures in the dermis separated by fibrocollagenous stroma [Figure 2]. These structures were lined by multilayered epithelium composed of cuboidal/polygonal cells forming papillary excrescences at places. The lumen showed eosinophilic amorphous material [Figure 3].

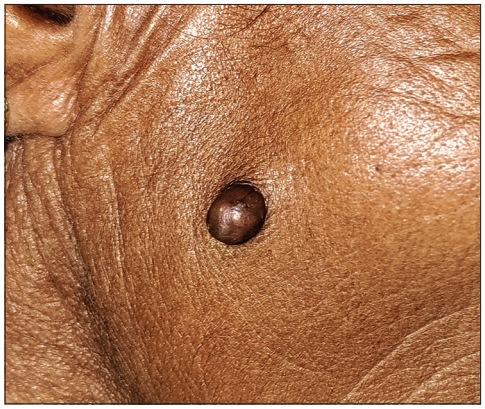

Figure 1: Skin colored nodule on the right cheek

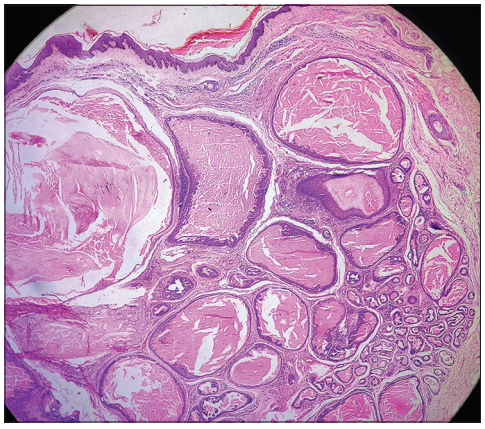

Figure 2: Numerous cystic spaces in the dermis lined by multilayered epithelium. Note the lining epithelium forming papillary projections into the lumen which is filled with eosinophilic amorphous material [H and E, x5]

What is the diagnosis?

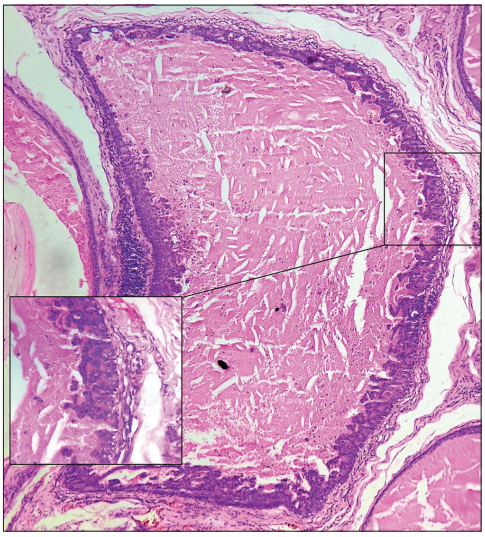

Figure 3: High power view showing the lining epithelium composed of multi-layered polygonal to cuboidal cells [H and E, x10, inset: x40]

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Answer

Papillary eccrine adenoma (tubulopapillary hidradenoma – eccrine type)

Discussion

Papillary eccrine adenoma is a rare benign adnexal tumor first described by Rulon and Helwig. It is commonly seen on the extremities of the middle aged dark skinned individuals with a female preponderance. Clinically, it presents as a non-discrete slow growing, skin colored, dome shaped nodule. Histologically, it is characterized by a well-defined dermal tumor exhibiting epithelial aggregates containing cystic or ductal structures that are lined by multilayered epithelium with intraluminal papillary excrescences. The cells are polygonal, and exhibit variable clear cell change without significant atypia or mitoses. Although both eccrine and apocrine differentiation can be seen, the former is much frequent. Immunohistochemically, the cells are reactive for CEA, S100, and EMA, indicating differentiation towards eccrine secretory epithelium. Histological differential diagnoses include syringocystadenoma papilliferum, hidradenoma papilliferum, papillary eccrine carcinoma, and digital adenocarcinoma. The latter is seen in fingers or toes of the elderly and is difficult to differentiate histologically. It usually shows a more infiltrative growth pattern, cytological atypia, and numerous mitotic figures. Myoepithelial markers conventionally thought to indicate benignity may also be expressed in adenocarcinoma. Papillary eccrine adenoma is effectively treated by complete excision which is usually not followed by any recurrence.[1-6]

Papillary eccrine adenoma also bears quite a resemblance to tubular apocrine adenoma, and hence, both are grouped under the term 'tubulopapillary hidradenoma' and the subtype (eccrine or apocrine) designated as applicable.[6] Although immunohistochemical confirmation could not be obtained because of the lack of facilities, multilayered epithelium forming papillary excrescences extending into the lumen, the presence of amorphous eosinophilic material within the lumen, predominance of cuboidal cells lacking cytoplasmic granules, and the absence of columnar cells with apical snouts/decapitation secretion pointed towards eccrine origin (rather than apocrine), and hence, the diagnosis of papillary eccrine adenoma was established.[1,6]

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient has given her consent for her images and other clinical information to be reported in the journal. The patient understands that her name and initials will not be published and due efforts will be made to conceal her identity, but anonymity cannot be guaranteed.

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Nil.

Conflicts of interest

There are no conflicts of interest.

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