Trichoadenoma of the External Auditory Canal - A Rare Lesion

Sir,

Trichoadenoma is a rare, well-differentiated, benign solitary tumor of the hair follicle first described by Nikolowski in 1958 commonly occurring on the face or buttocks.\textsuperscript{1} It is more differentiated than a trichoepithelioma with a differentiation toward infundibular portion of pilosebaceous canal.\textsuperscript{2}

We present a case of a 57-year-old female who presented with a tiny nodule in the external auditory canal measuring 4 mm since the past one year. There was no discharge from the nodule and she reported no hearing loss. Routine laboratory investigations done were normal. Serological tests for HIV, HbsAg and HCV were negative. Mantoux test was negative. Tests of auditory function were normal. An excision biopsy done was sent for histopathological examination.

Microscopic examination of the tissue revealed a lining of flattened keratinized squamous epithelium. The dermis revealed a well-circumscribed tumor arranged in lobules and comprising of numerous cysts filled with keratinous material. No hair shafts were seen. There was no evidence of inflammation or atypia.

Discussion

Trichoadenoma is a benign neoplasm of the hair follicle presenting as a solitary nodule most commonly on the face (57.5%) or buttocks (24.2%) varying in size from 3 to 50 mm in diameter.\textsuperscript{1,2} It can be seen rarely to occur in neck, upper arm, thigh,\textsuperscript{1} shoulder\textsuperscript{2} and shaft of penis\textsuperscript{3} and eyelid.\textsuperscript{4} This is the first case to be reported from external auditory canal.

Microscopically, trichoadenoma is composed of numerous horn cysts surrounded by eosinophilic epithelial cells. The central cystic cavity appears as a cross section of infundibular portion of pilosebaceous canal without any evidence of hair follicle formation. At times, solid epithelial islands without central keratinization may also be seen.\textsuperscript{5} In case the horn cysts rupture, foreign body granulomas may occur.\textsuperscript{1} Verrucous trichoadenoma is a variant of trichoadenoma, which clinically resembles seborrhoeic keratosis, and shows abundant keratin on epidermal surface.

Rarely, trichoadenoma has been reported to occur with an intradermal melanocytic nevus and its uncommon simultaneous occurrence with nevus sebaceous has also been recorded.\textsuperscript{1}

Trichoadenoma shows differentiation toward infundibular portion of pilosebaceous canal and is believed to be in between trichoepithelioma and trichofolliculoma in morphologic differentiation.

Trichoepithelioma is an autosomal dominant disorder, histologically characterized by the presence of basaloid cells with peripheral palisading surrounded by dense fibroblastic stroma whereas trichofolliculoma is a hamartomatous lesion consisting of multiple unicellular or multicellular keratin-filled cysts containing hair shaft fragments. The cysts are lined by squamous epithelium with the presence of a prominent granular layer.\textsuperscript{5}
Figure 1. Photomicrograph showing multiple horn cysts throughout dermis, surrounded by eosinophilic epithelial cells. The central cystic cavity shows epidermoid keratinization without any evidence of hair follicle formation.

Immunohistochemical studies in tricho adenoma have shown expression of cytokeratin 20 but are negative for eccrine differentiation.¹

Since tricho adenoma is a rare benign tumor of the hair follicle, it has not been well recognized. As it may occur in rare sites like external auditory canal, histopathological examination is mandatory to make a correct diagnosis.

Conflict of Interest: None

References


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