

Unusual Presentation of Hidradenoma Papilliferum on Terminal Phalanx - A Rare Case Report

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Abstract: *Hidradenoma papilliferum(HP) is a benign tumor of apocrine differentiation. It presents as dermal papulonodular lesion and usually occurs in women in the age range from 30-80 years. The common sites involved are on the labia majora or in the perineal or perianal region. The tumor is covered by normal skin and measures only a few millimeters in diameter. Malignant changes have also been reported in hidradenoma papilliferum in rare cases as aggressive adenosquamous or squamous cell carcinoma. Differential diagnosis may include tumors with same apocrine differentiation namely syringocystadenoma papilliferum and tubular apocrine adenoma. The diagnosis depends predominantly on the histomorphology of the lesion.*

Keywords: Hidradenoma papilliferum (HP), Histopathological examination (HPE), papillary structures (PS)

1. Introduction

Hidradenoma papilliferum is a benign neoplasm usually occurring in perineal and perianal parts of women¹. HP lesion present as a well circumscribed nodule in the dermis and lacks connection with the overlying epidermis². Rare cases of HP have also been reported in males². In this article a case of hidradenoma papilliferum over the terminal phalanx of the right index finger is discussed which was provisionally diagnosed as ganglion cyst clinically.

2. Case Report

A 61 year old woman presented with complaints of swelling over the radial aspect of terminal phalanx right index finger for 3 months duration in July 2025[Fig.1]. On examination,

size of the the swelling was 1.3x1 cm and soft in consistency. It was fluctuant with rounded margins. Following clinical examination, a diagnosis of ganglion cyst was given and surgical excision of the swelling was done and submitted for histopathological examination. On gross examination, a flattened already cut open soft tissue piece was received. The specimen measured 1.5x1x0.5cm On HPE showed a well circumscribed lesion arranged in papilla with fibrovascular cores [Fig.2]. The lesion also showed tubular and cystic structures. Few of these tubular structures showed decapitated eosinophilic secretions in the lumen [Fig.3]. The papillary folds (PS) project into the cystic spaces are lined by double layer epithelium throughout the lesion with inner columnar and outer cuboidal layer. Following the above findings a histomorphological diagnosis of hidradenoma papilliferum was given.



Figure 1: Dorsal view of right hand demonstrating swelling over terminal phalanx of index finger

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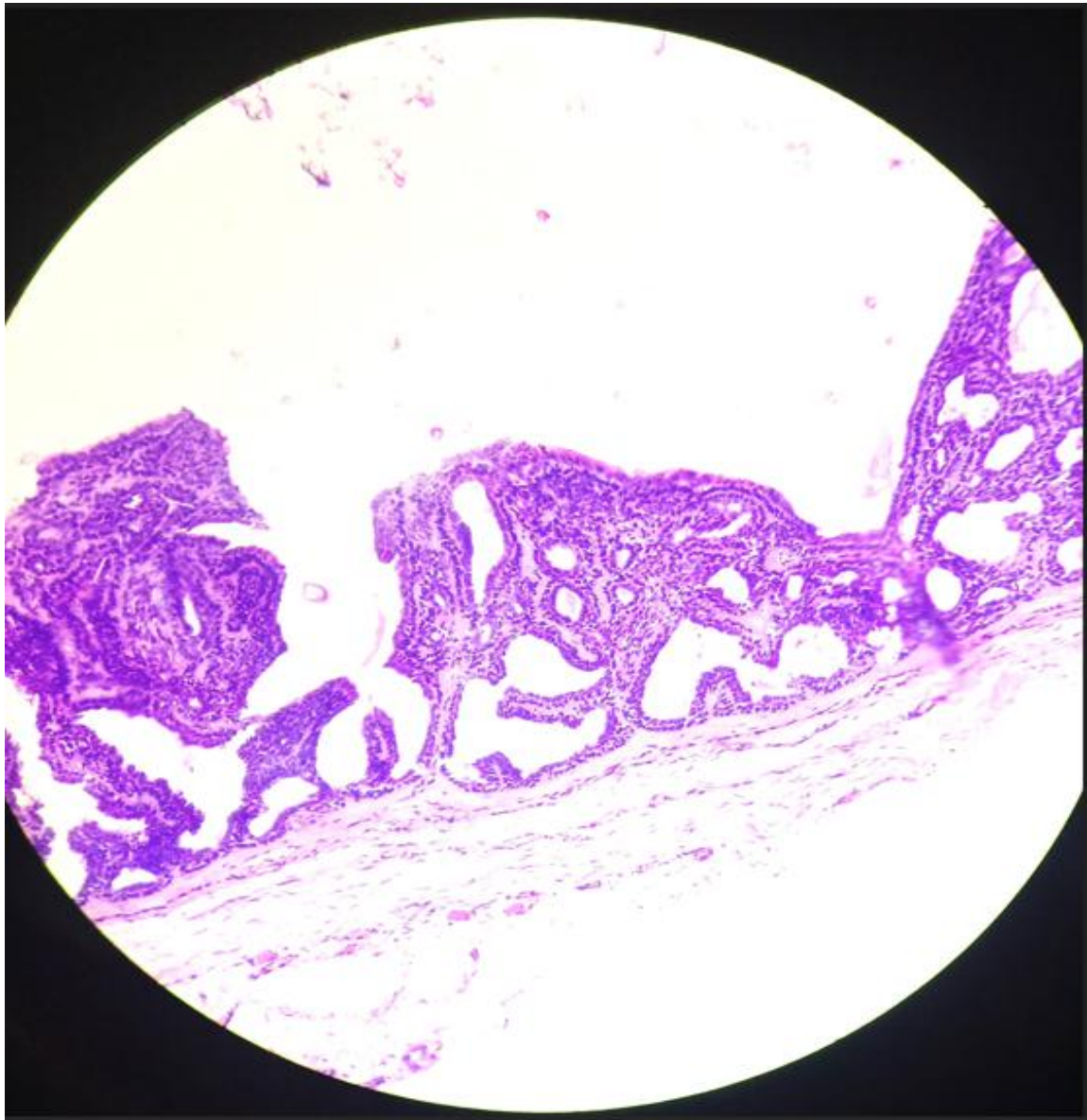


Figure 2: 100X image showing papillary growth pattern of Hidradenoma Papilliferum

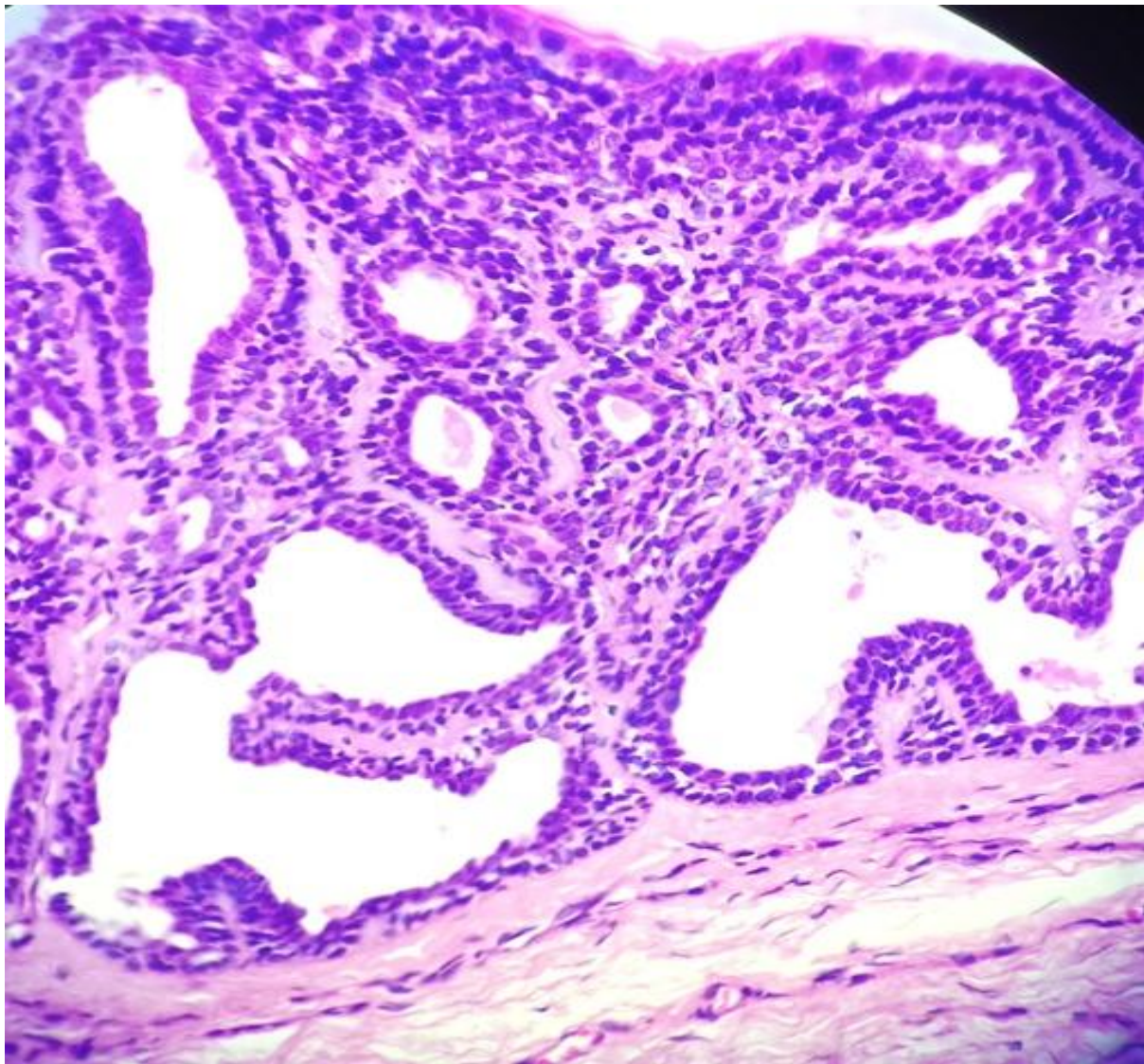


Figure 3: 400X image showing double lining epithelium of the papillae with active decapitation secretion like that are seen in apocrine glands.

3. Discussion

Hidradenoma papilliferum represents adenoma of apocrine differentiation and located in the dermis. It rarely involves the ectopic sites like head and neck, chest and abdomen³. 60% of ectopic HP is present in head and neck region, including eyelid, forehead, face, external auditory canal or heterotopic apocrine glands^{3,4}. In this case the location of the lesion is over the terminal phalanx of right index finger which is a rare case considering the site of lesion. The differential diagnosis include syringocystadenoma papilliferum and tubular apocrine adenoma. However, the lesion in syringocystadenoma papilliferum arise from the epidermis with similar papillary architecture with double layers of lining epithelium^{2,6}. In tubular apocrine adenoma also have similar double layers of lining epithelium. However, in contrast to HP, the peripheral cell layer contains no myofilaments on ancillary studies². Ancillary studies can be done in HP for the apocrine differentiation which includes histochemical, enzyme histochemical and electron microscopic examinations. HP can also present as a mimic for a digital ganglion cyst⁵.

4. Conclusion

Hidradenoma papilliferum generally presents as a small nodular lesion in perianal and perineal region in women. However the site of presentation and the clinical diagnosis was not common in this case. The diagnosis predominantly depends on histomorphology of the lesion. And treatment include complete surgical excision of the lesion with free margins.

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