A Case Report on Reticulated Pattern Sebaceoma in a Young Female

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ABSTRACT

Sebaceoma is a rare benign adnexal neoplasm that is composed of predominantly of immature sebocytes with occasional mature sebocytes. Muir Torre syndrome has been linked to sebaceomas. Usually seen in older individuals, as a single flesh-coloured papule on the head and neck region. This case study describes a female patient, aged 32, who presented with recurring tumor on her left upper eyelid. Microscopic examination showed features favouring Sebaceoma - Reticulated pattern. Although sebaceoma usually has an indolent clinical course, it is an uncommon condition that seldom affects young people.

Keywords: Eyelid, Lynch syndrome, Mismatch repair genes (MMR) , Muir Torre syndrome (MTS), Reticulated Sebaceoma

INTRODUCTION

Sebaceomas are well circumscribed lesions centred in the dermis and characterized by cells arranged in lobular pattern[1] and are extensively composed of basaloid cells (>50%)[2]. Germline mutations in DNA Mismatch Repair (MMR) genes, specifically MSH2, have been observed in patients with Muir Torre syndrome and sebaceous gland neoplasia's.[3]

CASE REPORT

A 32 years old , female patient presented with an eyelid mass. On examination a single small around 2cm mass noted in the left upper eyelid. She had a similar lesion surgically removed from the same site three years prior in a different hospital in their hometown. But there was no histopathology report available. She had no other complaints and all her medical history was non - contributory. It was surgically excised with a 1mm margin.

Gross Examination - a skin covered 1.7x1.1x0.6cm nodule was received. Cut surface showed grey white appearance. The nodule was entirely submitted for histopathological examination.

Histopathological examination revealed a well circumscribed tumor in the reticular dermis (Figure 1 and 2). Tumor is composed of small, monomorphic basaloid cells with scant cytoplasm and hyperchromatic nucleus arranged in linear reticulated pattern (figure 3 and 4) admixed with occasional mature sebaceous cells. A foci of connection with overlying epidermis is seen (Figure 3). However, no evidence of cellular atypia or atypical mitosis or necrosis noted. Stroma shows dense connective tissue. No peripheral palisading of cells or retraction cleft seen.

Immunohistochemistry MLH1 and MSH2 showed a strong positive immunoreactivity ruling out the possible Muir Torre syndrome association.

The follow-up period of 6 months was uneventful, following which it was discontinued since the patient moved back to her hometown.

DISCUSSION

Tumors derived from epithelial cells that differentiate into sebaceous adnexal structures of the skin are known as sebaceous tumors. [4] These sebaceous tumors include sebaceous adenoma, sebaceoma, and sebaceous carcinoma. Sebaceoma is a rare tumor that was originally described by Troy and Ackerman[5].

It mainly affects elderly persons, usually in their sixth decade of life.[2] The mean age of 47 cases of Sebaceomas in a clinicopathological study was 67.6 years.[6] Conversely, our study was on a young woman who had a lesion that appeared to be recurred. However, there was insufficient evidence to imply that the prior lesion was also a sebaceoma.

Sebaceoma is usually seen in face and scalp and only rare cases reported in trunk and extremities. With extremely few case reports on the eyelid, the periocular tissue is an uncommon location for Sebaceomas to occur.[7]

Histologically at low power sebaceoma is seen as a basophilic tumor centred in the deep dermis. Neoplasm can also have cystic areas and rarely connect with overlying epidermis[1]. Our study showed a focal connection with the epidermis. It is composed of small bland basaloid cells with hyperchromatic nucleus and scant cytoplasm admixed with mature sebaceous cells with foamy and vacuolated cytoplasm. There is no peripheral palisading and retraction clefts noted that will differentiate it from Basal cell carcinoma[8].

Various growth patterns of sebaceoma are described including reticulated (rippled), cribriform and glandular forms[1]. Male patients displayed a more pronounced rippled pattern in a clinicopathological study conducted by Kimura et al[8], and in majority of the cases the lesion was located on the scalp. Kiyohara et al[9], gave the first case report on Rippled pattern sebaceoma on the back.

Muir Torre Syndrome (MTS) is an autosomal dominant condition and a variant of the *Hereditary Non-Polyposis*

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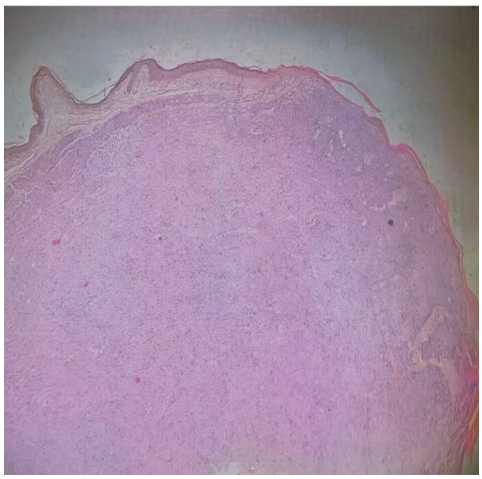

Figure-1: Well circumscribed tumor in the dermis (H & E -4x)

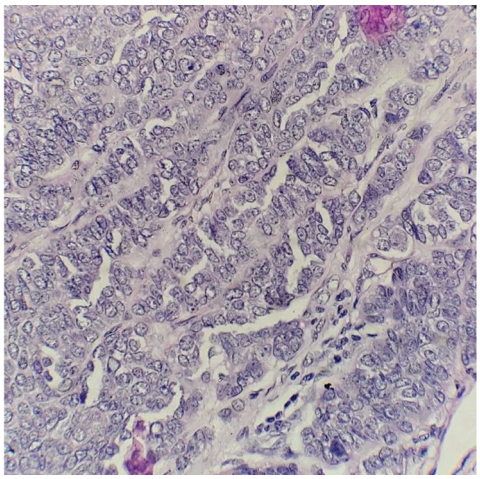

Figure-4: Reticulated pattern sebaceoma (H & E -40X)

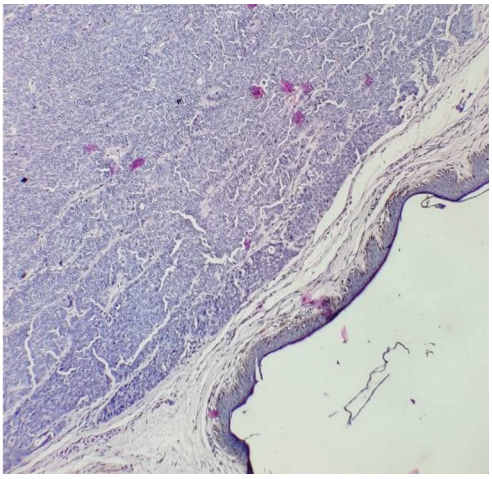

Figure-2: Tumor showing predominantly basaloid cells (H & E -20x)

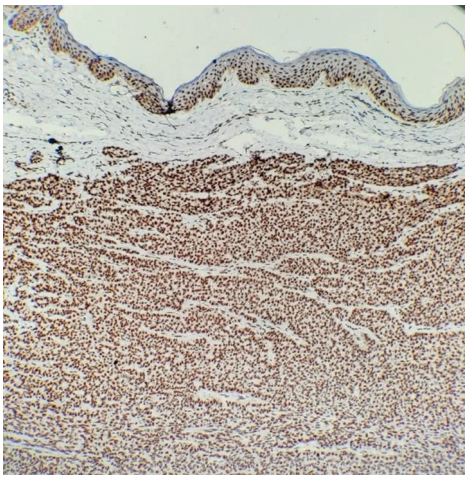

Figure-5: IHC - MSH2

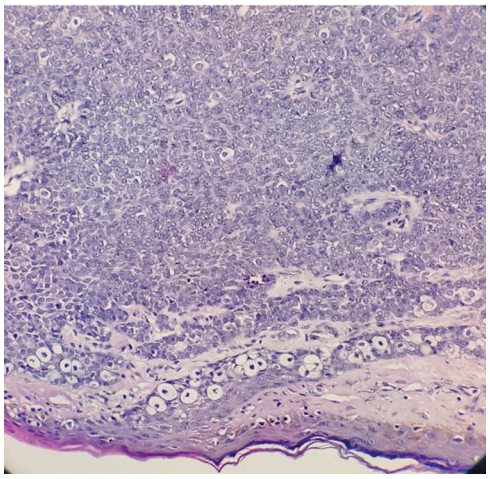

Figure-3: Image shows immature sebocytes admixed with scattered mature sebocytes with focal connection to epidermis(H & E -20x)

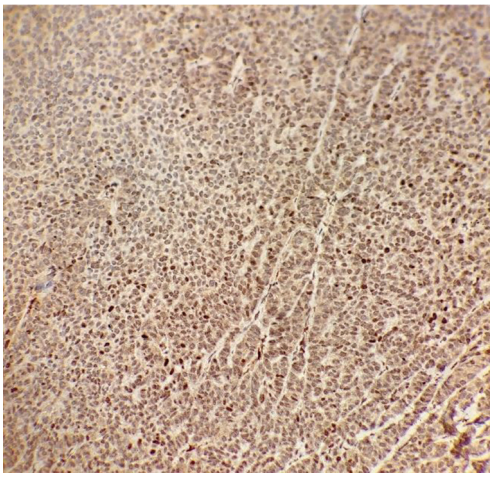

Figure-6: IHC-MLH1

Colorectal Carcinoma (HNPCC) Syndrome or Lynch syndrome. MTS occurs due to the germline mutation in mismatch repair genes (MMR) like MLH1, MSH2 and less frequently MSH6, MSH3, MLH3, PMS1, and PMS2.[10] MTS is defined by the co-occurrence of visceral malignancies (mainly colorectal, urogenital, mammary and haematological) and sebaceous tumors (adenoma, epithelioma, or carcinoma), or occasionally keratoacanthomas.[11] In the study conducted by Ponti et al[12] in patients with MTS, sebaceomas presented as multiple lesions and more seen in younger individuals. Since our case was a young patient presenting with a recurrent lesion in a rare site, the need for ruling out Muir

Torre syndrome was considered. A negative medical history and positive immune reactivity with MLH1 and MSH2 ruled out the association with MTS.

CONCLUSION

We have presented a case of sebaceoma in a young individual. The diagnosis of rippled pattern sebaceoma is made purely by histopathological examination and MTS was ruled out by immunohistochemistry. Sebaceomas can be treated with a simple excision, but since this lesion extended to the base of the biopsy, it was re-excised with narrow margins to prevent any further recurrence. The follow-up period of 6 months was uneventful.

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