**Rippled Pattern Extraocular Sebaceous Carcinoma: A Rare Case Report with Brief Review of Literature**

**Case Report**

A 61-year-old male presented with slowly growing swelling over the ala of nose, of 6 months duration. There was no history of fever, weight loss or diminished appetite. Local examination revealed a dome-shaped swelling measuring 2.5 x 1.5 cm. There was no evidence of any lymphadenopathy. Clinically, a diagnosis of a benign lesion of nose was made. A complete local excision was performed and specimen sent for histopathology.

**Gross:**

Specimen consisted of a single globular skin covered mass measured 2.5 x 1.5 x 0.5 cm. Area of focal ulceration was noted. Cut surface was solid, lobulated and grey white [Table/Fig-1A].

Histopathology sections showed skin which was atrophic, with focal ulceration. Sub-epithelium showed an asymmetric, poorly circumscribed tumour comprising of cells arranged in lobules of varying sizes, separated by fibrous stroma [Table/Fig-1B]. The tumour cells were typically arranged in palisading pattern, resembling waves of water-rippled pattern [Table/Fig-2A]. The individual cells were moderately pleomorphic, elongated with scant eosinophilic cytoplasm, nucleus with vesicular chromatin, overcrowding and prominent eosinophilic nucleoli. Centres of the lobules showed occasional sebaceocytes with multi-vacuolated cytoplasm and starry nuclei. [Table/Fig-2B and C] Infiltration was seen deep in the dermis. The centre of lobules showed necrosis [Table/Fig-2D]. Hence, a final diagnosis of sebaceous cell carcinoma with rippled pattern was made. A thorough investigation was done, to rule out any internal malignancy.

**Discussion**

Sebaceous Carcinoma (SC) is a highly aggressive malignant adnexal tumour of sebaceous gland origin, accounting for less than 1% of cutaneous. Extraocular sebaceous carcinomas are more aggressive than their ocular counterpart with a predilection for the skin of head and neck, trunk, salivary glands and extremities in decreasing order of frequency. Rippled effect literally means “gradually spreading effect”. In histopathology it describes the unique arrangement of tumor cells in palisading pattern. The tumors in which rippled effect has been reported include adnexal tumors like trichoblastoma, trichomatricoma, trichoblastoma with sebaceous differentiation, sebaceoma, basal cell carcinoma, fibrohistiocytic tumors, mesenchymal tumors and melanocytic tumors. We report the first case of extra ocular sebaceous carcinoma with rippled effect with emphasis on the fact that differentiation from other tumors demonstrating rippled effect is important in view of different treatment protocols.

**Key words:** Extraocular, Sebaceous carcinoma, Rippled pattern

**ABSTRACT**

Sebaceous carcinoma (SC) is a highly aggressive malignant adnexal tumor of sebaceous gland origin, accounting for less than 1% of cutaneous. Extraocular sebaceous carcinomas are more aggressive than their ocular counterpart with a predilection for the skin of head and neck, trunk, salivary glands and extremities in decreasing order of frequency. Rippled effect literally means “gradually spreading effect”. In histopathology it describes the unique arrangement of tumor cells in palisading pattern. The tumors in which rippled effect has been reported include adnexal tumors like trichoblastoma, trichomatricoma, trichoblastoma with sebaceous differentiation, sebaceoma, basal cell carcinoma, fibrohistiocytic tumors, mesenchymal tumors and melanocytic tumors. We report the first case of extra ocular sebaceous carcinoma with rippled effect with emphasis on the fact that differentiation from other tumors demonstrating rippled effect is important in view of different treatment protocols.

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**DISCUSSION**

Sebaceous Carcinoma (SC) is a highly aggressive malignant adnexal tumour of sebaceous gland origin, accounting for less than 1% of cutaneous malignancies [1]. Topographically, it can occur at ocular or extra ocular sites. The extra ocular sites being the skin of head and neck, trunk, salivary glands and extremities in decreasing order of frequency. Extra ocular tumours are historically thought to be uncommon and less aggressive than their ocular counterparts. A recent large scale study has drawn attention to the fact that extra ocular SCs are more aggressive and that they occur in increasing frequency, accounting for two thirds of all the cases [2].
Sebaceomas demonstrate sharp circumscription and good symmetry, while SCs are asymmetrical, poorly circumscribed with deep infiltration and superficial ulceration. On cytology, prominent eosinophilic nuclei, atypia and en mass centrilobular tumour necrosis favour a SC [7].

The pathogenesis of rippled growth pattern remains a matter of speculation. As has been proposed for verocay bodies, the overexpressions of laminin and phospholipids lead to cell to cell adhesion, resulting in the unifying appearance. However, absence of extracellular matrix production in SC mystifies the hypothesis [3]. SC has been more frequently associated with Muir-Torre syndrome as compared to other sebaceous lesions. Hence, thorough investigation is indicated, to rule out an internal malignancy [4].

Treatment should aim at wide surgical excision with regional lymph node removal. Prognosis of extra ocular tumours is worse.

**CONCLUSION**

We reported the first case of extra ocular sebaceous carcinoma with rippled pattern, with emphasis on the fact that its differentiation from other tumours demonstrating rippled pattern is important in view of different treatment protocols.

**REFERENCES**