

“Rippled” Pattern Sebaceoma: Case Report

“Rippled” Patern Gösteren Sebaceoma: Olgu Sunumu

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Abstract

Sebaceoma is a benign neoplasm that originally defined by Troy and Ackerman. It is composed of sebaceous duct-like or cyst-like structures that contain clusters of mature sebaceous cells admixed with basaloid cells.

Stroma is eosinophilic and sclerotic. They are most commonly seen in women and decades between 6 and 9, often on the face and scalp. Rippled pattern sebaceoma is a recently designated histopathological variant of sebaceoma and a rare subtype. It is characterized by a dermal aggregation of monomorphous, small, basaloid sebaceous germinative cells. The stroma reminds of Verocay bodies. In our case, the patient applied to our hospital with complaints non-healing wound at scalp for 2 years. Material was sent for pathological assessment, and macroscopically has a nodular lesion. Under microscopic assessment, tumor that was localized in the dermis and sharply demarcated from the surrounding tissue was consisting fine granular, hyperchromatic nuclei, basaloid, round or slightly prolonged cells with eosinophilic cytoplasm. Necrosis, atypical mitoses or pleomorphism were not detected. Vacuolated cytoplasmic sebaceous differentiation cells were found scattered. There was formation of cigar-shaped basaloid cells as linear parallel cords in some areas. Cystic epithelium lining the lumina was stained with cytokeratin-19 and cytokeratin-8. Some of vacuolated cells were stained with cytokeratin-19. No staining with cytokeratin-7, S100 and epithelial membrane antigen was observed. Diagnosis of rippled pattern sebaceoma was made with these histopathological findings.

Keywords

Rippled pattern, sebaceoma, Verocay body

Anahtar Kelimeler

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Öz

Sebaceoma, Troy ve Ackerman tarafından tanımlanmış benign bir neoplazidir. Matür sebace hücre kümeleriyle karışık bazaloid hücreler içeren sebace duktus ve kist benzeri yapılardan oluşmaktadır. Stroma eozinofilik ve sklerotiktir. Kadınlarda, 6. ve 9. dekada daha sık görülmekte, sıklıkla yüzde ve saçlı deride gelişmektedir. Sebaceomalarda rippled patern ise yeni tarif edilmiş olup nadir görülen bir alt tiptir. Histopatolojik olarak monomorfik, küçük, bazaloid sebace germinatif hücrelerin dermal agregasyonu ile karakterizedir. Stroması Verocay cisimciğini anımsatmaktadır. İki yıldır saçlı derisinde geçmeyen yara şikayeti ile başvuran hastanın patolojik incelemeye gönderilen materyalinde mikroskopik olarak nodüler bir lezyon izlendi. Mikroskopik incelemede ise dermis yerleşimli çevre dokudan keskin sınırla ayrılan eozinofilik sitoplazmalı, ince granüler, hiperkromatik nükleuslu bazaloid, yuvarlak veya hafif uzamış hücrelerden oluşan tümör saptandı. Nekroz, atipik mitoz veya pleomorfizm saptanmadı. Vakuole sitoplazmalı sebace farklılaşmalı hücreler dağınık

olarak bulundu. Bazı alanlarda doğrusal paralel kordonlar halinde puro şekilli bazaloid hücre formasyonu görüldü. Kistik luminaları döşeyen epitelde sitokeratin-8 ve sitokeratin-19 ile boyanma görüldü. Bazı vakuole hücrelerde Sitokeratin-19 ile boyanma saptandı. Sitokeratin-7, epitelyal membran antijen ve S100 ile herhangi bir boyanma gözlenmedi. Bu histopatolojik bulgularla olguya rippled paternde sebaceoma tanısı konuldu.

Introduction

Sebaceoma is a benign neoplasm that originally defined by Troy and Ackerman. It is composed of sebaceous duct-like or cyst-like structures that contain clusters of mature sebaceous cells admixed with basaloid cells. Stroma is eosinophilic and sclerotic (1). The histopathological pattern formed by the palisading or alternating bands of epithelial cells and stroma similar to Verocay bodies is called "rippled pattern" (2). Large number of tumors with a rippled pattern have been reported in the literature after a rippled patterned trichomatricoma reported by Hashimoto et al. (3). These are trichoblastoma, trichomatricoma, sebaceous differentiation trichoblastoma, apocrine differentiated trichoblastoma, basal cell carcinoma, fibrohistiocytic tumors and melanocytic tumors (3-5).

Case Report

A 68-year-old woman was applied to our hospital with a lesion in her scalp in last 2 years with recent growth and bleeding. On the physical examination, a pink-colored dome-shaped 2 cm in diameter mass was found on the occipital region. The mass is excreted and the surgical margins were clear. Macroscopically dome-shaped, pale-white and brown colored, 2x1.2x0.7 cm in diameter, nodular lesion was seen in pathologic examination. Under microscopic assessment, tumor that was localized in the dermis and sharply demarcated from the surrounding tissue was consisting fine granular, hyperchromatic nuclei, basaloid, round or slightly prolonged cells with eosinophilic cytoplasm (Figure 1). Necrosis, atypical mitoses or pleomorphism were not detected. Vacuolated cytoplasmic sebaceous differentiation cells were found scattered (Figure 2). There was formation of cigar-shaped basaloid cells as linear parallel cords in some areas. Cystic epithelium lining the lumina was stained with cytokeratin-19 and cytokeratin-8. Some of vacuolated cells were stained with cytokeratin-19 (Figure 3, 4). No staining with cytokeratin-7, S100 and epithelial membrane antigen (EMA) was observed.

Discussion

Sebaceoma is an unusual tumor of the skin and has a diameter of 1-3 cm, yellow-orange colored papules or nodules. They are most commonly seen in women and decades between 6 and 9, often on the face and scalp. Sebaceomas are usually solitary, but they are sometimes multiple, particularly in the Muir-Torre syndrome. They grow slowly and do not usually recur after treatment. Microscopically sebaceoma is dermal-located, rarely extends to subcutaneous fatty tissue.

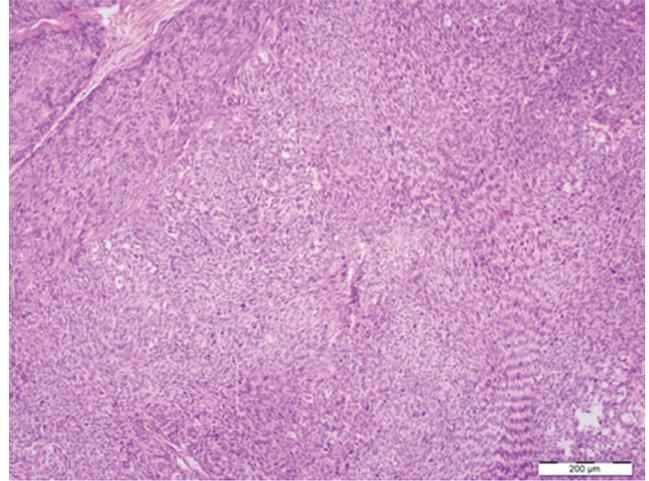


Figure 1. Basaloid, round or slightly elongated cells with eosinophilic cytoplasm, fine granular hyperchromatic nuclei (hematoxylin & eosin, x10)

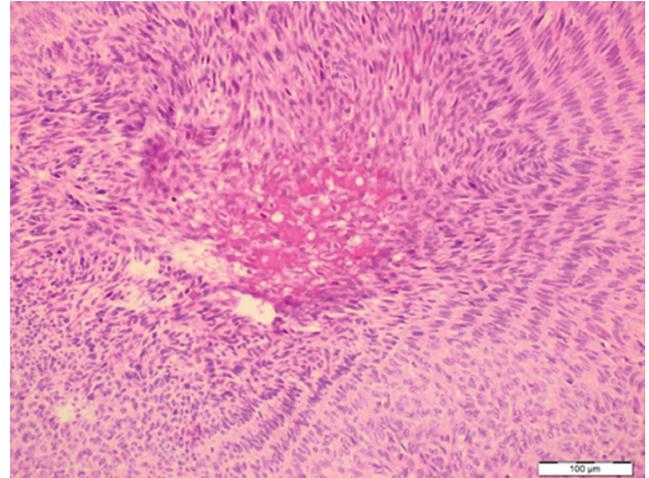


Figure 2. Sebaceous differentiation cells with vacuolated cytoplasm and rippled pattern (hematoxylin & eosin, x20)

The tumor is centered on the mid and upper dermis, some nests can be continuous with the basal layer of the epidermis. Nodules of varying size, consisting of small, uniform, minimal indeterminate cytoplasmic, round-oval nucleus, sometimes a mixture of mature sebocytes and basaloid cells containing small nucleolus are symmetrically distributed. These nodules are separated by dense eosinophilic connective tissue. Cysts and duct-like structures may be present. There are scattered mitoses, the tumor lacks the nuclear atypia, asymmetric and invasive growth of sebaceous carcinoma (6-8). The histopathological subtypes of sebaceoma are nevus sebaceus-associated type, classic type, poroma type, seborrheic keratosis/verruca vulgaris type and sebaceous adenoma type. Classic type of sebaceoma is characterized by a

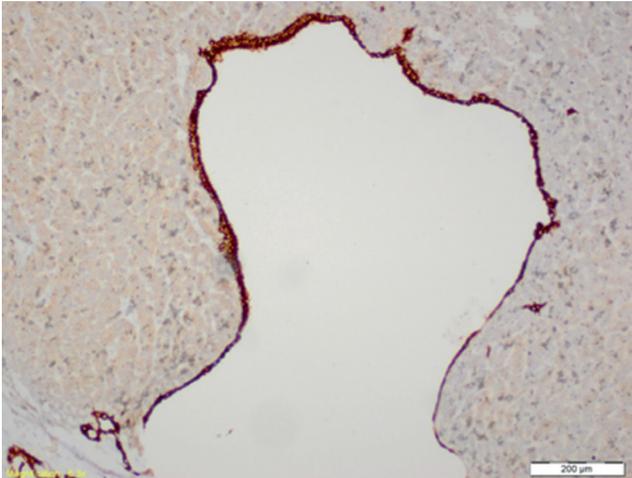


Figure 3. Immunohistochemical staining with cytokeratin-8 in cystic epithelium lining the lumina (hematoxylin & eosin, x10)

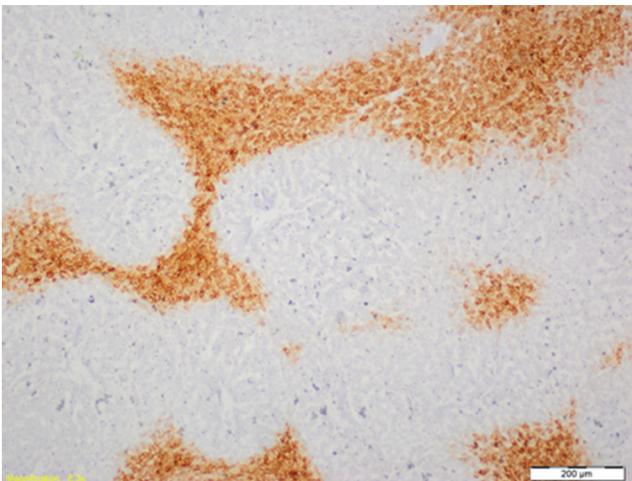


Figure 4. Immunohistochemical staining with cytokeratin-19 in vacuolated cells (hematoxylin & eosin, x10)

dermal aggregation of monomorphic, small, strong basophilic germinative cells conforming to the original description of Troy and Ackerman. Classic type of sebaceoma may appear in a reticular, cribriform or rippled pattern (2). Nuclear palisading is seen in some skin tumors and peripheral nuclear palisading often observed in trichilemmal tumors and basal cell carcinoma. The homogeneous pink colored areas between the nuclear palisading of schwannoma are called Verocay bodies. Verocay bodies are also seen in various other tumors such as basal cell carcinoma, dermatofibrosarcoma protuberans, trichoblastoma and sebaceoma. These findings were described as rippled-pattern (9). Rippled pattern sebaceoma is characterized by dermal aggregation consisting of monomorphous, small, basaloid, sebaceous germinative cells. Stroma resembles Verocay body, alternating bands of epithelial cords (2,9). Rippled patterned trichoblastoma is characterized by the arrangement of monomorphic, small, basaloid, follicular germinative cells in characteristic rippled pattern. Some sebaceomas may contain only sebaceous cells and trichoblastoma may show sebaceous differentiation with less fibrotic stroma without showing marked follicular differentiation. The distinctions are sometimes quite difficult because of the close association between trichoblastoma and sebaceoma (9). The presence of follicular differentiation, dense and abundant fibrotic stroma, vacuole cells and small duct-like spaces and absence of palisading on the side of neoplastic aggregation favor sebaceoma (2). In the immunohistochemical study, carcinoembryonic antigen and EMA are negative whereas vacuolated cells are positive for adipophilin (10). In a study of cytokeratins in a case of rippled-patterned sebaceoma, cytokeratin-1 negativity and cytokeratin-14 positivity in tumor nests were linked to the presence of undifferentiated epithelial cells. Duct-like cells are stained with cytokeratin-10 and cytokeratin-17. Oval-shaped cells are stained with cytokeratin-19 (11). Misago and Narisawa (2) reported undifferentiated basaloid cells and vacuolated cells are stained with cytokeratin-8, 18 and 19 and vacuolated cells are stained with cytokeratin-7, 10 and 17 in sebaceoma (11).

The pathogenesis of rippled growth pattern has not yet been elucidated (4). We present this case

because it is rare and can resemble other tumors showing rippled pattern. When diagnosing, it is necessary to keep in mind the sebaceoma in the differential diagnosis and support the diagnosis with immunohistochemical stains.

Ethics

Informed Consent: Informed consent was not necessary because the case report was a retrospective study.

Peer-review: Externally and internally peerreviewed.

Authorship Contributions

Surgical and Medical Practices: S.İ., S.G., Concept: S.G., C.T., Design: S.G., Data Collection or Processing: S.İ., S.G., Analysis or Interpretation: S.G., Ö.E.Ö., T.Ö., A.G.Ö., Literature Search: S.G., Writing: S.G., Ö.E.Ö., T.Ö., A.G.Ö.

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