Granular cell tumor on a cesarean section scar

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INTRODUCTION

Granular cell tumor (GCT) is a rare neoplasm originating from Schwann cells. The tumor is mostly benign; although, malignant transformation has been reported in 1% to 2% of the patients.[1] The tumor usually presents as a solitary slow-growing nodule. The common locations of the lesion are the skin, followed by the tongue, and oral cavity.[1] Other affected areas include breast, gastrointestinal or respiratory tract, thyroid gland, bladder, central nervous system, female genitalia,[1] and the site of skin trauma.[2-6] GCT has a female preponderance and usually occurs between the third and fifth decades of life.[1] In this case report, we describe a GCT arising in a cesarean section scar.

Abbreviation used:

GCT: granular cell tumor

CASE REPORT

A 33-year-old woman presented to the dermatology clinic with a 5-year history of an asymptomatic firm nodule over her cesarean section scar. The lesion began to appear 1 year after the procedure and gradually increased in size. The examination revealed a nontender, firm, erythematous, 2.5 × 4.5-cm nodule located at the left side of the surgical scar with no regional lymphadenopathy (Fig 1). Histopathology demonstrated a dermal proliferation of large round-to-polygonal cells with abundant granular eosinophilic cytoplasm and round-to-oval nuclei that stained positive for S100 protein (Fig 2) and CD68 and negative for CD10 and cytokeratin. Following the final diagnosis of GCT, the patient underwent complete surgical removal of the lesion. No signs of tumor recurrence were observed after 1 year of follow-up.

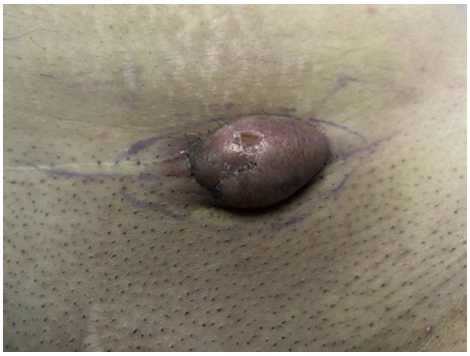

Fig 1. Granular cell tumor. An erythematous nodule located at the left side of the surgical scar.

DISCUSSION

Granular cell changes can be observed in a variety of benign and malignant tumors, including leiomyoma, rhabdomyoma, leiomyosarcoma, xanthomas, fibroxanthoma, dermatofibroma dermatofibrosarcoma, melanoma, apocrine carcinoma, and malignant peripheral nerve sheath tumor.[7] The hallmark of GCT histologic diagnosis is the detection of ovoid or polygonal cells with abundant eosinophilic, coarsely granular cytoplasm with a lack of pleomorphism or mitoses. By immunohistochemistry, GCTs express S100, CD68, neuron-specific enolase, and vimentin.[8,9]

Complete excision with negative margins is recommended for GCT in almost all locations. Mohs

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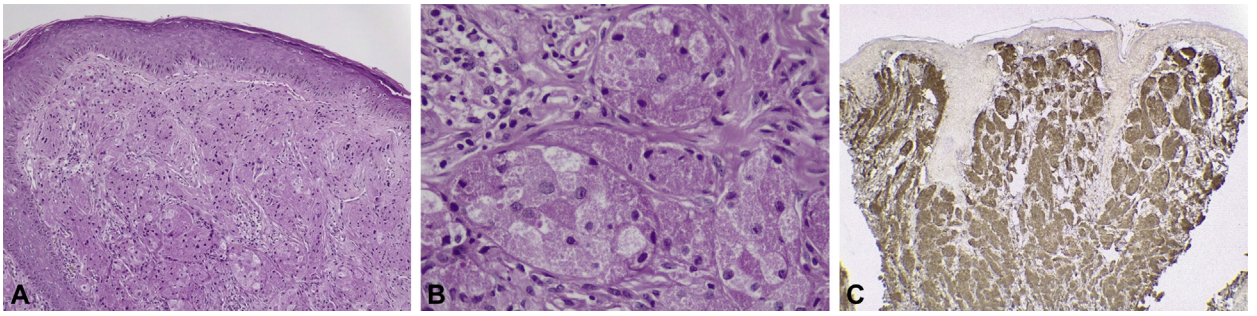

Fig 2. Granular cell tumor. Entire dermis being occupied by large round-to-polygonal cells with abundant granular eosinophilic cytoplasm and round-to-oval nuclei that stained positive for S100 protein. (Original magnifications: **A**, ×100; **B**, ×400; **C**, ×100.)

micrographic surgery is sometimes used for complete removal of the tumor, especially in cosmetically and functionally important areas.[10] A few chemotherapeutic agents such as pazopanib (used for the treatment of sarcoma) have been used to treat recurrent malignant GCTs. However, randomized clinical trials supporting the use of such agents are still lacking. Radiotherapy in the management of the tumor is still a matter of controversy. However, a few reports have advocated its use in recurrent malignant lesions or inoperable metastases.[10]

So far, only rare cases of GCT have been reported developing at skin trauma sites, either the site of vaccination or surgical incision.[2-6] Murcia et al[5] published the first case of GCT occurring on the vulvar episiotomy scar presenting as a subcutaneous nodule found during a routine gynecologic examination. In another case reported by Sułkowski et al,[6] GCT was found on a cesarean section scar at the fascia level, mimicking an endometrial tumor. Recently, Chasseuil et al[2] reported a verrucous GCT with a deep tissue component in a laparotomy scar. In contrast, in our patient, the tumor presented as a cutaneous lesion and did not extend beyond the dermis.

A variety of lesions can occur at the surgical scar site, including traumatic neuromas, sarcomas, and desmoid tumors,[2] and the case presented here adds GCT to this list. Given the fact that these lesions may not be differentiated clinically, histopathology and immunohistochemistry are necessary to establish the diagnosis. In conclusion, the case presented here underscores the importance of considering GCT as a differential diagnosis of cutaneous lesions occurring at the surgical incision sites.

Conflicts of interest

None disclosed.

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