An Asymptomatic Nodule on the Lower Eyelid

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CASE REPORT

A 46-year-old Taiwanese male presented with an erythematous nodule on the left lower eyelid for 3 months. He had no other medical disorder and denied trauma history at the lesional site. The nodule was asymptomatic and developed spontaneous ulceration at its center. Physical examination revealed a 0.6 x 0.4 cm nodule with central ulceration on the margin of the left lower eyelid (Fig. 1). An incisional biopsy was performed and the histological pictures were shown in Fig. 2-4.

Fig. 1
An ulcerated nodule on the left lower eyelid.

Fig. 2
Low magnification revealed surface ulceration with highly cellular lesion in the dermis.

Fig. 3
Higher magnification revealed the infiltrating cells to have convoluted nuclei and abundant eosinophilic cytoplasm.

Fig. 4
Strongly positive immunoreactivity for S-100 protein.
DIAGNOSIS: Langerhans Cell Histiocytosis Localized to the Eyelid

Microscopic Findings and Clinical Course

Histological examination showed the presence of a highly cellular lesion in the dermis with ulceration (Fig. 2). The lesion was characterized by a sheet-like proliferation of histiocytes which had convoluted, often kidney-shaped, nuclei, and an abundance of pale eosinophilic cytoplasm (Fig. 3). Immunohistochemical stain for S-100 protein demonstrated strongly positive staining within the histiocytes, confirming the diagnosis of Langerhans cell histiocytosis (LCH) (Fig. 4).

Further physical examination revealed no lymphadenopathy or hepatosplenomegaly. There was essentially no skin lesion suggesting LCH elsewhere. A computed tomographic scan of the head, neck and trunk; and the results of routine blood tests were unremarkable. We removed the residual tumor by surgical excision. The surgical margin was free and henceforth, no further treatment was given.

DISCUSSION

LCH is a disease characterized by a proliferation of Langerhans histiocytes. It comprises a wide clinical spectrum, ranging from solitary lesions with a usually good prognosis, to widely disseminated lesions with a potentially malignant course. The most common presentation for an orbital involvement is osteolytic lesions of the orbit. Reports of eyelid lesions without orbital bone involvement are rare. To our knowledge, there have been only three reports of LCH occurring as an isolated tumor on the eyelid.

Chikama reported a 46-year-old Japanese man with LCH localized to the left upper eyelid. The nodule was 7 mm in diameter with a decubital ulcer and simply cured by a complete local resection. The patient also suffered from a foreign body sensation. Our patient had the same age of onset and gender as the former, but was free of symptoms, possibly due to the relatively small size of the lesion.

The cases of isolated LCH in the eyelid still need a systemic workup, since cervical lymphadenopathy, osteolytic lesions and visceral organ involvement have also been reported in such cases.

The clinical course and the prognosis of LCH are difficult to predict. The most important parameters are the age of the patient, the number of organs involved, and the degree of organ dysfunction. In our patient, the isolated lesion confining to the skin and his relatively old age suggest a favorable prognosis; nevertheless, a careful and long term follow-up is mandatory.

REFERENCES