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Case Report

Amyloidosis in the Palpebral Conjunctiva Mimicking Lymphoproliferative Lesion

Shinjiro Kono Patricia Ann L. Lee Hirohiko Kakizaki
Yasuhiro Takahashi

Department of Oculoplastic, Orbital and Lacrimal Surgery, Aichi Medical University Hospital, Nagakute, Japan

Keywords
Amyloidosis · Conjunctiva · Lymphoproliferative lesion

Abstract
A 47-year-old Japanese woman presented with a 1-year history of foreign body sensation in the right eye. Upon examination, a linear soft tissue lesion in the lower conjunctival fornix was noted. The mass resembled a conjunctival lymphoproliferative lesion but was pinkish-yellow rather than salmon pink in color. Histopathology of the biopsy specimens revealed amyloidosis. Systemic workup showed no other lesions. The conjunctival lesion did not recur at 3 months postoperatively. Since conjunctival amyloidosis mimics conjunctival lymphoproliferative lesions, it is important to keep conjunctival amyloidosis as a differential diagnosis in the diagnosis of a pinkish conjunctival lesion.

Introduction

Amyloidosis in the palpebral conjunctiva is a rare entity [1–3]. It occasionally mimics other conjunctival tumors, such as granulomatous, inflammatory, or cancerous lesions [1]. Definite diagnosis is necessary for proper management of disease. Here, we report a patient with localized amyloidosis in the palpebral conjunctiva mimicking a lymphoproliferative lesion.

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Yasuhiro Takahashi
Department of Oculoplastic, Orbital and Lacrimal Surgery
Aichi Medical University Hospital
1-1 Yazako-Karimata Nagakute, Aichi 480-1195 (Japan)
yasuhiro_tak@yahoo.co.jp

Case Report

A 47-year-old woman presented with a 1-year history of foreign body sensation in the right eye not relieved by sodium hyaluronate eyedrops. There was no personal or family history of systemic disease, including multiple myeloma or any neurologic or autoimmune diseases. The patient has never undergone dialysis.

Upon first examination, a linear soft tissue lesion was noted centrally along the lower conjunctival fornix (Fig. 1a). The mass resembled a conjunctival lymphoproliferative lesion but was pinkish-yellow rather than salmon pink in color. Orbital computed tomographic images revealed a purely conjunctival mass without infiltration of surrounding structures (Fig. 1b). The mass was homogeneous and isodense with respect to muscle. The results of blood tests were unremarkable.

Excisional biopsy was performed under local anesthesia. Histopathology showed acidophilic deposition in an intercellular substance (Fig. 1c), which stained orange-red with direct fast scarlet staining and emitted green light with a polarizing microscope (Fig. 1d). The histopathological findings were consistent with amyloidosis. We consulted with a hematologist, and systemic workup, including biopsy of gastric mucosa, bone marrow, and fat in the foot and abdomen, revealed no other lesions. The conjunctival lesion did not recur at 3 months postoperatively.

Discussion

This report documents a case of amyloidosis in the palpebral conjunctiva that was initially suspected to be a conjunctival lymphoproliferative lesion because of its presentation as a linear, slowly-growing lesion on the lower conjunctival fornix. In addition, the prevalence of conjunctival lymphoproliferative lesions is higher than that of conjunctival amyloidosis, which also confused us for diagnosis. Our case will be educationally helpful for clinical diagnosis of conjunctival amyloidosis.

The clinical presentation of conjunctival amyloidosis is varied. Differential diagnoses include reactive lymphoid hyperplasia, lymphoma, leukemia, papilloma, granulomatous inflammation, fibrosis, and pyogenic granuloma [1, 2, 4]. Conjunctival amyloidosis has previously been reported as being red, yellow, pink, or pale in color [1, 4]. In this case, the mass was pinkish-yellow rather than salmon pink. This was key to differentiating conjunctival amyloidosis from lymphoproliferative lesions just based on inspection.

In conclusion, we report a case of amyloidosis in the palpebral conjunctiva mimicking a lymphoproliferative lesion. Conjunctival amyloidosis is an important differential in the diagnosis of a pinkish conjunctival lesions.

Statement of Ethics

The authors adhered to the tenets of the 1964 Declaration of Helsinki. Written informed consent from the patient for the publication of this report were obtained. We asked the institutional review board of Aichi Medical University Hospital and confirmed that the ethics approval for this report was not necessary on the basis of the ethical guidelines for medical and

health research involving human subjects established by the Japanese Ministry of Education, Culture, Sports, Science, and Technology and the Ministry of Health, Labour, and Welfare.

Conflict of Interest Statement

The authors have no conflicts of interest to declare.

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Author Contributions

All authors qualify for authorship based on contributions to the conception and design (S.K. and Y.T.), acquisition of data (S.K. and Y.T.), literature search (S.K. and Y.T.), and analyses and interpretation of data (all authors). All authors contributed to drafting the article and revising it critically for important intellectual content and final approval of the version to be published.

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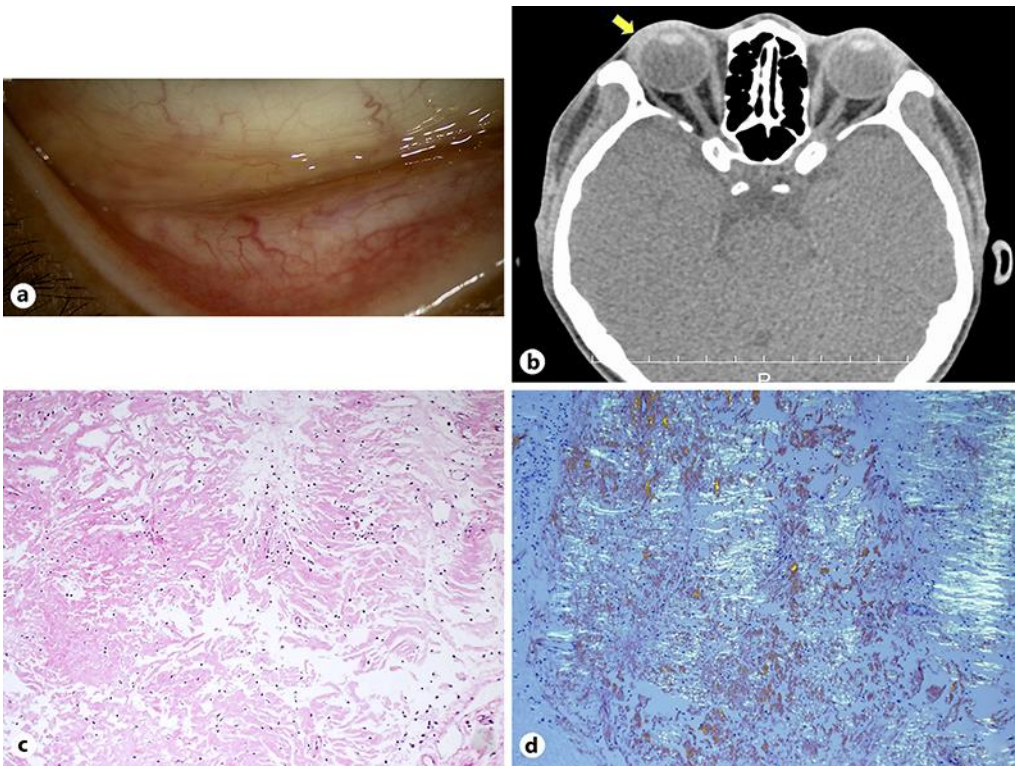

Fig. 1. Case presentation. **a** A linear lesion is located at the center of the lower conjunctiva fornix. The color is pink tinged with yellow. **b** Axial computed tomographic image showing a mass corresponding to the conjunctival lesion without infiltrating surrounding structures (arrow). **c** Histopathological examinations showing acidophilic deposition in an intercellular substance (hematoxylin and eosin staining, magnification, ×100). **d** Acidophilic deposition stains orange-red color with direct fast scarlet staining (magnification, ×100).