

Conjunctival lymphangiectasis: successful surgical resection of an idiopathic case

Erbil Seven, MD¹; Muhammed Batur, MD¹; Serek Tekin, MD¹; Gulay Bulut, MD²; Tekin Yasar, MD¹

¹Department of Ophthalmology, Yuzuncu Yil University, Van, Turkey

²Department of Pathology, Yuzuncu Yil University, Van, Turkey

Abstract

Conjunctival lymphagiectasis is a topical ocular condition characterized by swelling of conjunctiva as a result of dilated lymphatics of the bulbar conjunctiva. In this case report, a 51-year-old man presented with conjunctival swelling in the left eye. Conjunctival lymphangiectasis was diagnosed and a conjunctival resection was performed. No recurrence was found in follow-up examination at 9 months.

Introduction

Conjunctival lymphangiectasis is a swelling of the conjunctiva caused by enlarged lymphatics.¹ Although the exact cause of this rare condition is unknown, it is likely the result of obstruction of lymphatic ducts. Generally, patients may have blurred vision, lacrimation, and ocular discomfort. The disorder often resolves spontaneously, but conjunctival resection is a suitable treatment option when necessary. A rare case of lymphangiectasis is presented in this report.

Case Report

A 51-year-old man presented to the outpatient clinic complaining of redness, pain, and swelling of his left eye, for 6 months duration. During this time, he had consulted with several ophthalmologists with no

Correspondence: Erbil Seven, MD Department of Ophthalmology Yuzuncu Yil Univeristy 65080, Tusba, Van, Turkey E-mail: erbilseven@gmail.com Phone: (90) 5059295628 appropriate diagnosis or treatment. At one point, he was given steroid eye drops, which did not resolve his symptoms. He had no considerable history of surgery, trauma, or irradiation.

On examination, the patient's best-corrected visual acuity was 20/20 in the right eye and 20/20 in the left eye. Intraocular pressure was 12 mmHg in each eye. Hertel exophthalmometry measurement was 18 mm in each eye. Slit-lamp biomicroscopy of the left eye demonstrated a hyperemic cystic lesion in the temporal bulbar conjunctiva (Figure 1). The anterior segment was otherwise unremarkable and was normal in the



Figure 1 *External evaluation of the patient demonstrated conjunctival swelling (arrows) in the left eye.*

Conflict of Interest: The authors report no conflicts of interest. **Contributions:** All authors contributed equally. **Accepted for Publication:** April, 2019 This work is licensed under a Creative Commons Attribution Non-Commercial 3.0 License (CC BY-NC 3.0). ©Copyright Seven et al., 2019. Licensee Ophthoscience Publishers, USA



www.eyereports.org [Eye Reports 2019; 5:1]



fellow eye. Dilated fundus examination was normal in both eyes.

Thyroid function tests and orbital magnetic resonance imaging findings were normal. Tear breakup time was 17 seconds in the right eye and 18 seconds in the left eye. Schirmer's test results after 5 minutes were 15 mm in the right eye and 16 mm in the left eye.

Conjunctival resection of the lesion in the left eye was performed under local anesthesia. The open conjunctival tissue was closed with 8-0 Vicryl suture. Pathological evaluation confirmed the diagnosis of conjunctival lymphangiectasia (Figure 2). The patient's complaints improved in follow-up, and no recurrence was found in the follow-up examination at 9 months (Figure 3).

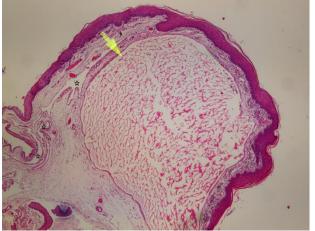


Figure 2

Histopathologic examination of the hematoxalin and eosin stained lesion demonstrated kyperkeratosis and squamous metaplasia of the surface mucosa, with marked edema of the lamina propria and stroma, and dilated lymphatic channels (arrow).

Discussion

Conjunctival lymphangiectasia, which is characterized by abnormal diffuse enlargement of the lymphatic vessels, is a rare condition. It appears clinically as chemosis. Localized, dilated lymphatics may appear as cysts.² An old scar, a pinguecula, or some other conjunctival lesion often obstructs localized lymphatics, and dilatation may occur secondarily. However, sometimes the main cause is unknown. In this case, we could not identify any noticeable etiological cause.

Lymphangiectasia can often be confused with other causes of conjunctival swelling, such as edema, previous periocular surgery, trauma, and infection. Conjunctival swelling may occur because of elevated hydrostatic pressure due to excessive fluid loading, resolution of obstruction resulting from thyroid eye disease, increased osmotic pressure associated with orbital tumor, or hypoproteinemia.³ Conjunctivochalasis can be considered in the differential diagnosis, but this can be clearly distinguished by the presence of age-related, loose



Figure 3 External evaluation of the patient demonstrated resolution of the conjunctival swelling in the left eye nine months after surgical resection.

connections and excessive conjunctival tissue. Conjunctivochalasis is treated with conjunctival resection.⁴

Although conjunctival lymphangiectasis frequently improves spontaneously, sometimes the conjunctiva is chronically swollen, and this may induce tear film impairment. Direct surgical excision to the affected conjunctiva is an appropriate treatment



www.eyereports.org [Eye Reports 2019; 5:1]



option, although various treatment strategies have been reported in the literature, including marsupialization, liquid nitrogen cryotherapy, and carbon dioxide laser ablation.⁵⁻⁸ We performed direct surgical excision in this case, and there was no recurrence at follow-up after 9 months.

Ophthalmologists should consider conjunctival lymphangiectasis in the differential diagnosis of conjunctival swelling and redness. Surgical resection is an appropriate choice for treatment.

References

- 1. Duke-Elder S. Diseases of the outer eye: conjunctiva. In: Duke-Elder S, editor. System of ophthalmology, vol. 8, pt. 1. St Louis: Mosby; 1965:40.
- 2. Yanoff M, Sassani JW. Conjunctiva. In: Ocular pathology, 7th ed. London: Elsevier Saunders; 2014.

- 3. Kalin NS, Orlin SE, Wulc AE, et al. Chronic localized conjunctival chemosis. Cornea 1996; 15: 295–300.
- 4. Meller D, Tseng SCG. Conjunctivochalasis. Literature review and possible pathophysiology. Surv Ophthalmol 1998; 43: 225–232.
- 5. Spraul CW, Buchwald HJ, Lang GK. Idiopathic conjunctival lymphangiectasia. Klin Monbl Augenheilkd 1997; 210: 398-9.
- Meisler DM, Eiferman RA, Ratliff NB, Burns CD. Surgical management of conjunctival lymphangiectasis by conjunctival resection. Am J Ophthalmol 2003; 136(4): 735-6.
- 7. Fraunfelder FW. Liquid nitrogen cryotherapy for conjunctival lymphangiectasia: a case series. Arch Ophthalmol 2009; 127: 1686-7.
- 8. Spector JA, Zide BM. Carbon dioxide laser ablation for the treatment of lymphangioma of the conjunctiva. Plast Reconstr Surg 2006; 117: 609-12.

