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Conjunctival Hemorrhagic Lymphangiectasia with Subconjunctival Hemorrhage

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Abstract **Case Report**

A 49-year-old woman presented with spontaneous ocular redness and swelling in her right eye. Slit-lamp biomicroscopy revealed diffuse subconjunctival hemorrhage and a circumferential engorgement of the bulbar conjunctival vessels, which appeared as worm-like conjunctival lymph vessels filled with blood. The clinical picture was consistent with the diagnosis of conjunctival hemorrhagic lymphangiectasia with subconjunctival hemorrhage. Conjunctival hemorrhagic lymphangiectasia disappeared rapidly in 4 days, subconjunctival hemorrhage took 10 days to heal. Conjunctival hemorrhagic lymphangiectasia is not an uncommon condition, and clinicians should be aware of its distinguishing features when examining conjunctival hemorrhages.

Keywords: Conjunctival hemorrhagic lymphangiectasia, subconjunctival hemorrhage.

INTRODUCTION

Conjunctival hemorrhagic lymphangiectasia (CHL) was first described by Leber in 1880 [1]. CHL is a rare condition in which the lymphatic channels in the bulbar conjunctiva are dilated and filled with blood. It describes a connection between conjunctival lymphatic and blood vessels, resulting in the intermittent rapid filling of conjunctival lymphatics with blood [1-3]. CHL suddenly develops and usually resolves spontaneously [1-5].

Herein, we report a case of CHL with subconjunctival hemorrhage (SCH).

CASE REPORT

An otherwise healthy 49-year-old woman, with no previously known ophthalmic or systemic pathology complained of spontaneous ocular redness and swelling in her right eye. Slit-lamp biomicroscopy revealed diffuse SCH and a circumferential engorgement of the bulbar conjunctival vessels, which appeared as worm-like conjunctival lymph vessels filled with blood (Figure 1). The clinical picture was consistent with the diagnosis of CHL with SCH. The patient was followed without any treatment. CHL disappeared rapidly in 4 days, SCH took 10 days to heal.

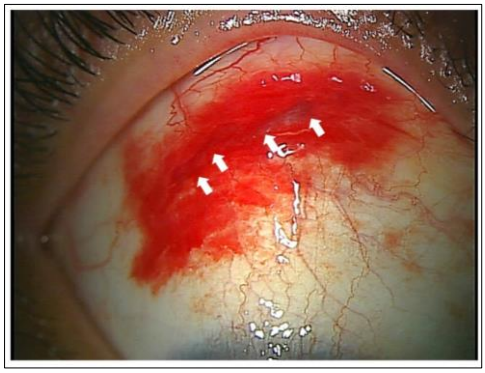

Figure 1: Photograph of the right eye showing blood-filled lymph vessel (arrows) and subconjunctival hemorrhage in the superior bulbar conjunctiva.

DISCUSSION

The clinical picture of this patient consists of segmental CHL with SCH. This patient had no obvious precipitating factors such as surgery, trauma, clotting abnormalities, coughing or straining. The absence of associated these pathologies, which might raise the periorbital or orbital pressure, suggests an idiopathic form.

The conjunctivae contain two vascular systems – a superficial and a deep plexus - between which is a free anastomosis in the loose subconjunctival connective tissue [2, 3]. The conjunctivae are the only components of the globe and orbit to have a lymphatic drainage system. They can be divided into several groups whose channels drain directly into the superficial venous plexus. An incomplete pericorneal lymphatic ring forms a rich network 1 mm wide of tiny lymphatic vessels surrounding the edge of the cornea. From here originate lymphatic channels that initially radiate and then become concentric with the corneal margin at about 4-5 mm from their origin. Large collector channels then emerge circumferentially 7-8 mm behind the limbus. We consider that these collector channels correspond to the circumferential engorgement of the conjunctival vessels seen in this patient. CHL is thought to evolve from an abnormal connection established between a blood vessel of the deep venous plexus and the lymphatic vessel.

CONCLUSION

CHL is not an uncommon condition, and clinicians should be aware of its distinguishing features when examining conjunctival hemorrhages.

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