

## CASE REPORT

# Recurrent conjunctival pyogenic granuloma. Case presentation

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## ABSTRACT

**Introduction:** pyogenic granuloma is a benign vascular tumor that can also occur in the ocular conjunctiva.

**Patient information:** it was presented a case of a white male patient, 75 years old, who came to the Oculoplasty Clinic of the “Arnaldo Milián Castro” Hospital with an increase of pedunculated volume in the inner third of the lower eyelid of the right eye that had been growing progressively for several months. This lesion started as a small lump in the tarsal conjunctiva and progressively increased in size until it protruded and caused ectropion of the lower eyelid. Constant exposure of the mass and rubbing against the eyelid skin caused permanent infection that did not subside with antibiotics applied locally in eye drops. A microbiological study of conjunctival secretions showed a multibacterial colonization.

**Conclusions:** histopathological study of the lesion allows confirmation of the diagnosis. They can be treated with steroids or surgical excision.

**Key words:** pyogenic granuloma; conjunctival neoplasms

## RESUMEN

**Introducción:** el granuloma piogénico es un tumor vascular benigno que puede presentarse también en la conjuntiva ocular.

**Información del paciente:** se presenta el caso de un paciente masculino, de piel blanca y 75 años de edad, que llegó a la Consulta de Oculoplastia del Hospital “Arnaldo Milián Castro” aquejado de aumento de volumen pedunculado en el tercio interno del párpado inferior del ojo derecho que ha crecido progresivamente desde hacía varios meses. Esta lesión comenzó como un pequeño bulto en la conjuntiva tarsal y progresivamente aumentó de tamaño hasta que protruyó y provocó ectropión del párpado inferior. La constante exposición de la masa y el roce con la piel del párpado provocaba la infección permanente que no cedía con antibióticos aplicados localmente en colirios. Un estudio microbiológico de las secreciones conjuntivales demostró una colonización multibacteriana.

**Conclusiones:** el estudio histopatológico de la lesión permite la confirmación del diagnóstico. Pueden ser tratados con esteroides o escisión quirúrgica.

**Palabras clave:** granuloma piogénico; neoplasias de la conjuntiva

## INTRODUCTION

Pyogenic granuloma (or lobular capillary hemangioma) is a benign vascular tumor that usually is formed on the skin, although it can also occur on mucous membranes and within capillaries or other parts of the body and is characterized by inflammatory cells and lobular capillary proliferation. Although the name pyogenic is generally accepted, it has been proven that purulent exudate is not the characteristic of this lesion nor is it an infectious process as such.<sup>(1)</sup>

Clinically, it presents as a pedunculated, papillomatous, pinkish-colored lesion that develops after surgical or accidental trauma or a local inflammatory process (chalazion or foreign body reaction). The fundamental characteristic of pyogenic granuloma is its rapid growth, from days to weeks, after conjunctival damage by surgery or trauma.<sup>(2)</sup>

## PATIENT INFORMATION

A 75-year-old white male patient, with no pathologic antecedents, who had undergone surgery for a pedunculated lesion in the inferior tarsal conjunctiva of the left eye, arrived at the Oculoplasty Clinic of the "Arnaldo Milián Castro" University Clinical Surgical Hospital of Santa Clara City, Villa Clara Province. No history of traumatic injury, chalazion or previous interventions related to the lesion found was recorded in the interrogation. The intervention performed, the incision and the biopsy in first intention passed without immediate trans-surgical or postoperative complications. Six weeks later, at the same surgical site, a rapidly enlarging overlying tissue began to grow, which grew towards the midline and caused an eversion of the lower eyelid of the left eye (Figure 1). On several occasions he was medicated with steroid anti-inflammatory drugs and antibiotics for several superimposed infections due to contamination with germs from the circulating skin of the eyelids.

On arrival at the clinic, the lesion had grown and caused an ectropion; the patient suffered severe discomfort caused by the overexposure of the ocular surface, in addition to the problems caused by the impossibility of closing the left eye. He presented with a pedunculated lesion, papillomatous in appearance and pinkish in color (Figure 2).

Macroscopic examination of the lesion suggested a pyogenic granuloma. Excision of the lesion and surgical repair of the ectropion it had caused was performed. The extracted lesion was sent to the Department of Anatomic Pathology for histological corroboration of the diagnosis. The specimen was embedded in kerosene and stained with hematoxylin and eosin and observed under an optical microscope at 10x magnification (Figure 3). The conclusion of the anatomopathological study was lobular capillary hemangioma type pyogenic granuloma.

Review at one week and three months showed minimal scarring in the tarsal conjunctiva and no evidence of recurrence was found at the time of this publication.

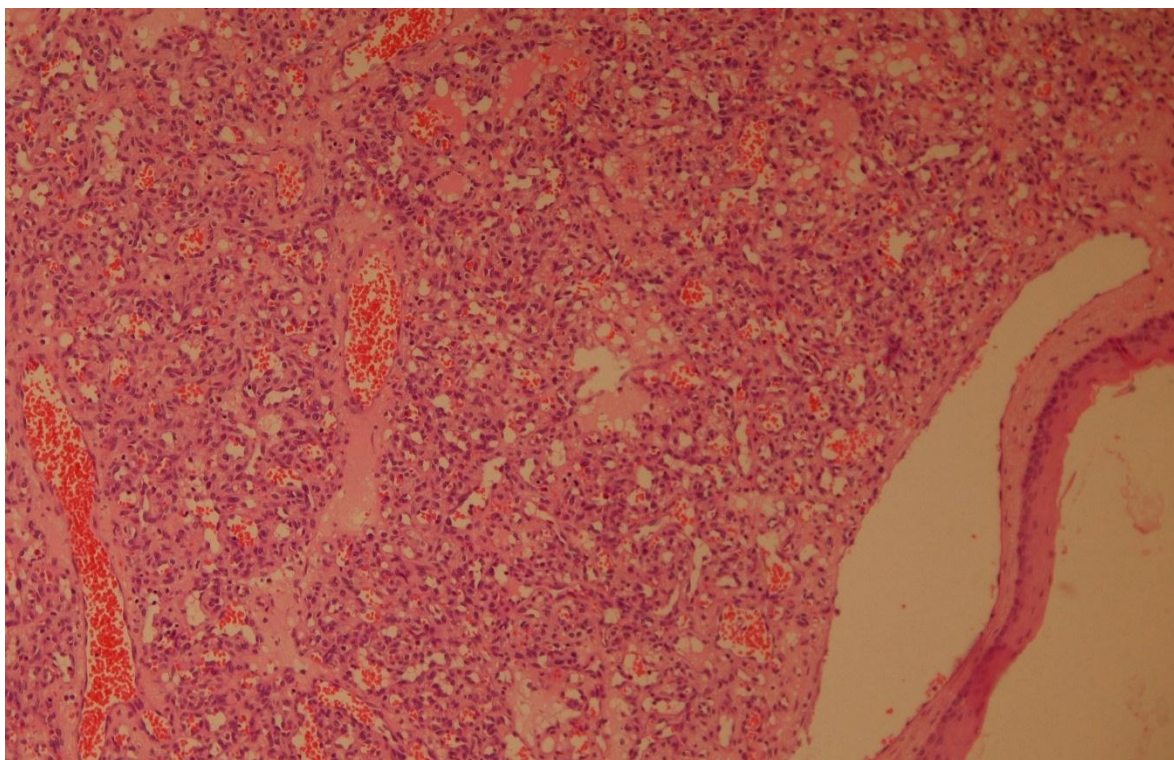


**Figure 1.** Frontal aspect of the lesion. Exophytic, rosy and richly vascularized formation. Ectropion of the lower eyelid is evident



**Figure 2.** Lateral detail, showing the pedunculated characteristic of the lesion





**Figure 3.** Histological aspect of the lesion

## DISCUSSION

The presented case has no causal relationship with trauma or previous surgeries. There was also no history of having had a chalazion or other conjunctival lesion. Although the appearance of pyogenic granulomas has been related to trauma in previous surgical interventions, chalazion drainage incisions and others, the appearance of pyogenic granulomas without a demonstrable causal relationship has also been described.<sup>(3)</sup>

These lesions are usually friable and prone to bleeding, and association with conjunctival epithelial neoplasia has been described with a pyogenic granuloma that dominates the clinical picture and masks the presentation.<sup>(4)</sup>

The differential diagnosis should be made, mainly, with a pedunculated papilloma, with which the speed of progression and the history of trauma or chalazion generally differentiate it. It is also important to differentiate it from suture granulomas, squamous papilloma and malignant tumors such as squamous cell carcinoma and amelanotic melanoma. In all cases the incisional biopsy will corroborate the diagnosis.<sup>(2)</sup>

Histopathological study of the lesion allows confirmation of the diagnosis.<sup>(5)</sup> Histopathologically it consists of granulation tissue composed of a lax stroma containing numerous capillaries distributed radially and a mixture of acute and chronic inflammatory cells.

They can be treated with steroids or surgical excision. Intralesional administration of triamcinolone has been described to reduce the likelihood of recurrence.<sup>(5)</sup> Favorable results have been reported after three weeks with topical treatment with timolol eye drops twice daily.<sup>(6)</sup>

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## CONFLICT OF INTEREST

The authors declare that they have no conflicts of interest.