

## Original Research Article

# Severe Complication of Pterygium Surgery: Diagnosis and Treatment of an Observation

Belhadj Othmane<sup>1\*</sup><sup>1</sup>Ophthalmology Department, KHENIFRA Hospital, X89P+6PC, Khenifra Road, Meknes, 54000, Khenifra, Morocco**Article History**

Received: 22.10.2022

Accepted: 29.11.2022

Published: 14.12.2022

**Journal homepage:**<https://www.easpublisher.com>**Quick Response Code**

**Abstract:** Pterygium is a frequent pathology that affects the appendages of the eye. It is a degenerative fibrovascular lesion of the bulbar conjunctiva appearing in the palpebral fissure and extending over the cornea, mainly in the nasal region [1]. It is frequently found in tropical regions [1]. Most are asymptomatic but can lead to eye morbidity associated with aesthetic consequences. Its symptomatology is dominated by irritation, watering, tingling, and discomfort. Decreased visual acuity is related to flooding, lamella penetration, and corneal deformation [2-4]. His treatment remains surgery. Several techniques are described such as simple excision, excision with graft (auto, amniotic membrane), use of adjuvants, and Beta irradiation [5, 6]. Complications remain rare but formidable. Management varies according to schools and availability. The most severe constitute perforation with often recourse to keratoplasty.

**Keywords:** Pterygium, fibrovascular lesion, eye morbidity.

Copyright © 2022 The Author(s): This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC BY-NC 4.0) which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use provided the original author and source are credited.

## INTRODUCTION

Pterygium is a relatively common eye disease that predominates in warm, dry areas in the north and south of the equator.

Although its treatment is simple and fast with minimal immediate iatrogenic risk, cases of exceptional postoperative perforations have been reported.

Their prognosis is reserved and their treatment is often difficult.

## MATERIALS AND METHODS

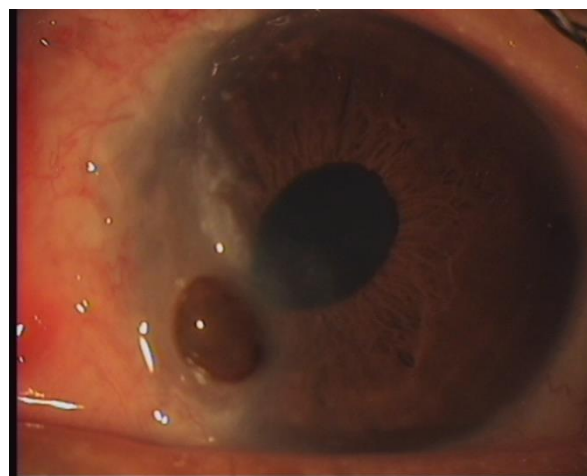
A 35-year-old patient was operated on for pterygium recurrent OG.

Who charged 48 hours after surgery decreased visual acuity, redness, and watering?

He presents a month later to the emergency department for aggravation of his symptomatology whose examination finds he takes the last intervention for BAV whose examination finds:

AV: 8/10 OD, 2/10 OS

A perforation at 7 o'clock with a hernia of the iris and a slightly ovalized pupil.



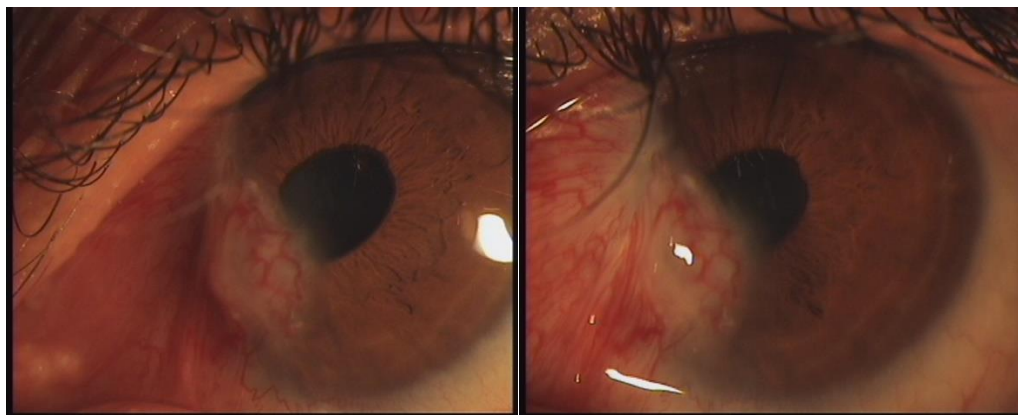
**Figure 1: corneal perforation at 7 o'clock**

The introduction of a therapeutic lens proved insufficient.

A conjunctival recovery was carried out secondarily.

\*Corresponding Author: Belhadj Othmane

Ophthalmology Department, KHENIFRA Hospital, X89P+6PC, Khenifra Road, Meknes, 54000, Khenifra, Morocco



**Figure 2: Conjunctival recovery of perforation**

### Development

Favorable with a 3/10 AV, a filling of the perforation, and maintenance of satisfactory integrity of the eyeball.

## DISCUSSION

Pterygium surgery ranges from simple excision with scarification of the horn and putting the sclera naked to more complex surgical techniques, such as imbibition of dilute mitomycin, conjunctival graft, lamellar keratoplasty, and amniotic membrane grafting, but some can cause serious complications in the ocular surface including corneal perforation.

Many techniques are used in the treatment of these perforations including the installation of a therapeutic lens, the use of cyanoacrylate or fibrin glue, the achievement of conjunctival coverage, a lamellar graft or “hot” transfixing keratoplasty.

More recently, authors have proposed the creation of a multilayer amniotic transplant.

In our observation, the patient benefited from conjunctival coverage that allowed the sealing of the perforation and the maintenance of satisfactory integrity of the eyeball, however, it remains aesthetically unsightly and, as it prevents any visual recovery, it requires the use of keratoplasty in a second time.

## CONCLUSION

Pterygium is a relatively common pathology.

Among the various risk factors, UV exposure is the most common as well as chronic allergic conjunctivitis.

Postoperative complications such as conjunctival infections.

Lachrymation, diplopia, astigmatism, the occurrence of hemorrhage in the body apterygial, Metaplasia epidermoid of the epithelium covering,

Actinic keratosis can make the bed of a squamous cell epithelioma can be seen.

Corneal perforation remains a serious problem that can occur after pterygium surgery, is difficult to treat and compromises the visual prognosis.

Conjunctival recovery seems to us an interesting alternative and allowed in our observation the preservation of the integrity of the eyeball.

## REFERENCES

1. Kanski, J. J., & Bowling, B. (2011). *Clinical Ophthalmology: A Systematic Approach*. 7th ed. Edinburgh: Elsevier Saunders; *Conjunctiva*; pp. 163–4.
2. Maheshwari, S. (2007). Pterygium-induced corneal refractive changes. *Indian J Ophthalmol*, 55(5), 383-6.
3. Mohammed, I. (2011). Treatment of pterygium. *Ann Afr Med*, 10(3), 197-203. doi: 10.4103/1596-3519.84695.
4. Kaufman, S. C., Jacobs, D. S., Lee, W. B., Deng, S. X., Rosenblatt, M. I., & Shtein, R. M. (2013). Options and adjuvants in surgery for pterygium: a report by the American Academy of Ophthalmology. *Ophthalmology*, 120(1), 201-208. doi: 10.1016/j.ophtha.2012.06.066. Epub 2012 Oct 11.
5. Gong, J., Fan, J., Shen, T., & Jiang, J. (2018). Comparison of self-made cryopreservative fibrin glue and commercial fibrin glue kit in pterygium surgery: 1-year follow-up. *Acta Ophthalmologica*, 96(2), e152-e155. doi: 10.1111/aos.13478. Epub 2017.
6. Romano, V., Cruciani, M., Conti, L., & Fontana, L. (2016). Fibrin glue versus sutures for conjunctival autografting in primary pterygium surgery. *Cochrane Database of Systematic Reviews*, (12), CD011308. doi: 10.1002/14651858.CD011308.pub2.
7. Sarnicola, V., Vannozzi, L., & Motolese, P. A. (2010). Recurrence rate using fibrin glue-assisted ipsilateral conjunctival autograft in pterygium

- surgery: 2-year follow-up. *Cornea*, 29(11), 1211-1214. doi: 10.1097/ICO.0b013e3181d5d96d.
8. Ratnalingam, V., Eu, A. L. K., Ng, G. L., Taharin, R., & John, E. (2010). Fibrin adhesive is better than sutures in pterygium surgery. *Cornea*, 29(5), 485-489. doi: 10.1097/ICO.0b013e3181c29696.
  9. Ayala, M. (2008). Results of pterygium surgery using a biologic adhesive. *Cornea*, 27(6), 663-667. doi: 10.1097/QAI.0b013e31815d105e.
  10. Liu, L., Wu, J., Geng, J., Yuan, Z., & Huang, D. (2013). Geographical prevalence and risk factors for pterygium: a systematic review and meta-analysis. *BMJ open*, 3(11), e003787.
  11. Elwan, S. A. (2014). Comparison between sutureless and glue free versus sutured limbal conjunctival autograft in primary pterygium surgery. *Saudi Journal of ophthalmology*, 28(4), 292-298. doi: 10.1016/j.sjopt.2014.03.012.
  12. Srinivasan, S., & Slomovic, A. R. (2007). Eye rubbing causing conjunctival graft dehiscence following pterygium surgery with fibrin glue. *Eye*, 21(6), 865-867.
  13. Koranyi, G., Seregard, S., & Kopp, E. D. (2005). The cut-and-paste method for primary pterygium surgery: long-term follow-up. *Acta Ophthalmologica Scandinavica*, 83(3), 298-301.

---

**Cite This Article:** Belhadj Othmane (2022). Severe Complication of Pterygium Surgery: Diagnosis and Treatment of an Observation. *East African Scholars J Med Sci*, 5(12), 320-322.