World Bulletin of Public Health (WBPH)
Available Online at: https://www.scholarexpress.net
Volume-21, April 2023
ISSN: 2749-3644

MORPHOLOGY OF PTERYGIUM

Rajabov Hamid
Assistant of Department Pathomorphology of Urganch Branch of Tashkent Medical Academy
Pathological anatomy

Article history:

Received: February 11th 2023
Accepted: March 11th 2023
Published: April 12th 2023

Abstract:

This article details pterygium: epidemiology, prevention and treatment, risk factors and pathogenesis, pterygium excision, post-operative management, conjunctival grafting, indication for surgery, pterygium morphology

Keywords: pterygium, morphology, pathogenesis, epidemiology, conjunctival grafting

INTRODUCTION:

A pterygium is a wing shaped growth of tissue across the cornea, which is the clear window at the front of the eye. It is sometimes known as a "pearl" because it looks white. It nearly always forms on the part of the cornea, which is visible when the eye is open. The exact cause of the disease is uncertain. It may be related to prolonged UV light exposure.

It is commonly seen in people who have lived in a hot dusty country or have worked outdoors for many years or have been exposed to temperature fluctuations. It may be due to drying of the eye. It is not a cancer, but it can get slowly larger with time. There may be no symptoms in earlier cases. In more advanced disease, one may experience redness, inflammation, foreign body sensation.

LITERATURE ANALYSIS AND METHODOLOGY:

Usually vision is not affected until the pterygium becomes big and comes in line of vision or causes change in the shape of the cornea. If the pterygium is small, no treatment is required. If the eye is uncomfortable, lubricating drops and / or ointment may help. These can be obtained from your GP or bought at your local pharmacy and can be used long term if needed.

If the pterygium advances until it is at the edge of the pupil or if it is enlarging and very uncomfortable, gets inflamed or causes limitation of eye movement then surgical correction may be indicated. This is usually performed under local anaesthesia as a day case in the operating theatre at the Eye Unit. You can eat and drink normally before the operation .The eye is numbed with drops and an injection, and the eyelids are held open for you with an eye speculum.

The pterygium is scraped off the cornea and the sclera. A piece of conjunctival autograft is harvested from another site in the same eye or the fellow eye and grafted to cover the exposed site, but the cornea is left to heal by itself. The graft is usually stuck down with glue but may sometimes need absorbable sutures that fall off or are absorbed within a few weeks. The eye will be covered with a pad.

These population-based studies suggest that cumulative ultraviolet light exposure due to outdoor occupation is a major risk factor for the devel-opment of pterygium. Other factors associated with pterygium develop-ment are age, being male and having dry eyes. Genetic factors, tumor suppressor gene p53 and other genes may be involved in the pathogenesis of pterygium.

RESULTS:

A study indicated a two-stage hypoth-esis for pterygium pathogenesis: initial disruption of the limbal barrier and progressive active "conjuncti-valisation" of the cornea. Identification of Fuchs Flecks at the head of pinguecula, primary pterygium, recurrent pterygium, and macroscopically normal nasal and temporal limbus may represent precursor lesions to UV associated ocular surface pathology.

Avoidance of environmental risk factors like sunlight, wind and dust by wearing UV rays protecting sunglass-es and hat may prevent development of pterygium. These protective meas-ures may help to prevent recurrence of pterygium after surgery. Similarly, wearing of eye safety equipment is recommended in environment exposed to chemical pollutants as a preventive measure for pterygium.

The main indication for pterygium surgery is visual disturbance sec-ondary to encroachment over the pupillary area or induced astigma-tism. Other indications which can be considered are, restriction in eye movements, chronic redness andforeign body sensation, and cosmetic concerns.

DISCUSSION:

Surgery is the mainstay of treatment for pterygium causing visual distur- bances. The primary complication of pterygium surgery is recurrence defined by regrowth of fibrovascular tissue across the limbus and onto the cornea. No uniformity of opinion exists regarding the ideal pterygium excision procedure associated with lowest recurrence rate. Bare sclera technique, which is widely used in the developing world for the ease and

World Bulletin of Public Health (WBPH)
Available Online at: https://www.scholarexpress.net
Volume-21, April 2023
ISSN: 2749-3644

speed of surgery, is associated with high recurrence rates.

Other adjunctive therapies combined with bare sclera technique have significantly reduced the recurrence rate. Application of different agents like Strontium 90, Beta irradiation and cytotoxic drugs like Mitomycin-C and 5-Fluorouracil to the scleral bed have been tried but sight threaten- ing complications like inflammatory scleritis, scleromalacia and loss of the eye have been occasionally reported.

CONCLUSION:

In conclusion, a recent publication suggests a fiberoptic type of transmission of ultraviolet light from the temporal sideof the cornea, through the stroma and onto the nasal as-pect of the eye, perhaps partially explaining why these lesions are more commonly found nasally. Nonsurgical management of pterygium includes the liberal use of topical lubricating solutions, the occasionaluse of vasoconstrictors or mild anti-inflammatory agents for flare-ups, and protection from ultraviolet light withsunglasses.

REFERENCES:

1. McCarty CA, Fu CL, Taylor HR. Epidemiology of Pterygium in Victoria, Australia. Br J Ophthalmology. 2000.
2. Lu J, Wang Z, Lu P, et al. Pteryglum in an aged Mangolian Population: a population based study in China. Eye. 2009.
3. Ang M, Li X, Wong W, eta al. Prevalence of and racial differences in pterygium a multiethnic population study in Asians. Ophthalmology. 2012.
4. Nemesure B, Wu SY,Hennis A et al. Nine-year incidence and risk factors for pterygium in the Barbados eye studies. Ophthalmology. 2008.
5. Liu T, Liu Y, Xie L, et al. Progress in the pathogenesis of pterygium. Current Eye Res. 2013.