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A sporadic case of bilateral nasal and temporal pterygium on both eyes

Vesna Cheleva[1], Liljana Spasevska[2]

[1]University Eye Clinic, University "Ss. Cyril and Methodius", Skopje, Macedonia
[2]Institute of Pathology, Medical Faculty, University "Ss. Cyril and Methodius", Skopje, Macedonia

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Abstract

A rare case of bilateral nasal and temporal pterygium is presented in the study. All four pterygia were operated with limbal conjunctival auto transplantation from superior or inferior part of the bulbar conjunctiva. There was no recurrence. Samples of the surgery excised pterygium tissue were pathohistologicaly examined.

Case report

The patient was 65 years old man with four pterygia located nasally and temporally on both eyes (Figure 1). The patient is a farmer and he is working outdoor since earliest childhood.

Ocular examination. Visual acuity OD: 0.2 s.c. VOS: 0.3 s.c. Javal-keratometry and autorefractometry – irregular astigmatismus. IOP OU: 17.3 mmHg. Biomicroscopy - OD: nasal pterygium encroaches the limbus (6 mm) and temporal pterigium (4 mm). OS: nasal pterygium encroaches the limbus (5 mm) and temporal pterygium (4 mm). Stockers line was present of the both nasal pterygia. Hyposecretion (Schirmer test: 4 mm, BUT test: 8 sec) and ectropium were found on both eyes.

Operations. The nasal pterygium of the right eye was excised first. The limbal transplant of the conjunctiva from the temporal inferior quadrant was grafted on the side of the excised pterygium. After a week the nasal pterygium of the left eye was excised with the same surgical method. After a month, the temporal pterygium of both eyes were excised, as well. The surgical method was similar to the one used for the nasal pterygium, using the free limbal conjunctival graft from the temporal superior quadrant.

Figure 1. Patient with four pterygia, temporal and nasal on both eyes

Postoperative examinations were performed the next day after surgery and every third month in the first year. The last visit was 3 years after the operation. There was no recurrence found at any examination of all four excised pterygia *(Figure 2)*. The vision was im-

Correpondence:
Assoc. Prof. Vesna Cheleva, ophthalmologist, Bul. "Kuzman Josifovski Pitu" br 19/5-33
1000 Skopje, Macedonia, e-mail: vesna_c@yahoo.com, phone: +389 70 363 281

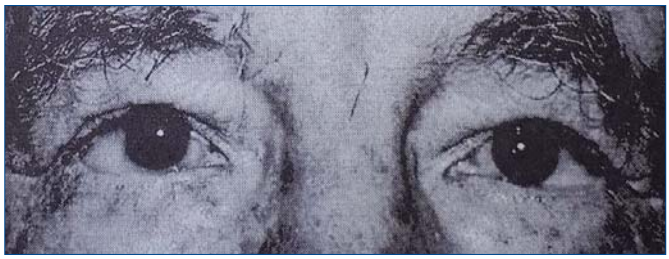

Figure 2. Patients after the surgery of four pterygia

proved. The post-operative visual acuity was OD: 0.5 s.c. and OS: 0.6 s.c.

The postoperative therapies were corticosteroids eye-drops and antibiotic ointment.

Histopathological examination exhibited multiplication and degeneration of elastic and collagenous fibers and blood vessel multiplication. Identification of numerous goblet cells, diffusely scattered or clustered in the form of intraepithelial glands. Invaginations in the connective tissue underlying the epithelium. All of the above test results confirmed the diagnosis of pterygium *(Figures 3-6)*.

Discussion

Same of the etiological causes (1,2,3,4,5) can be confirmed by the examination of this patient with multiple pterygia, such as:

1. Ultraviolet exposure, sunny climate, dust and wind irritation, due to his longlasting outdoor work as a farmer.
2. Inheritance: patients father had a pterygium and they had a similar configuration of the eye bulbs.
3. Hyposecretion and dysfunction of glandula lacrimalis and increased evaporation of tears caused by ectropium.
4. Histopathology of the pterygia shows significant changes in the epithelium and connective tissues, compared with the cornea and conjunctiva (6).

The method of excision of pterygium with limbal conjunctival autotransplant from the superior or inferior bulbar conjunctiva is a safe and effective surgery technique (7). As that we are recommending this surgical procedure for the rare multiple bilateral cases of pterygia and also for primary, advanced and recurrent pterygium.

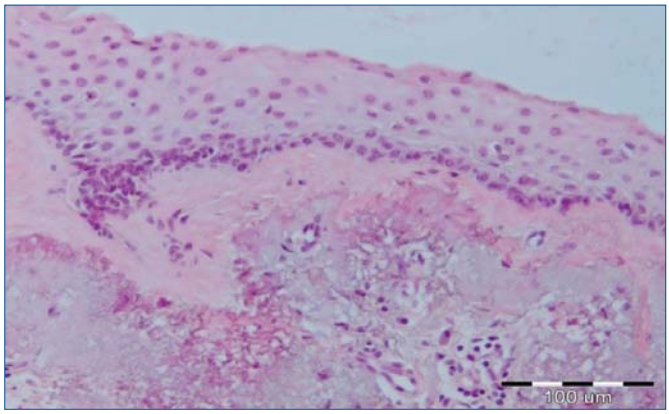

Figure 3. Rich subepitelial connective tissue covered with conjunctival epitelium (HE, 40×)

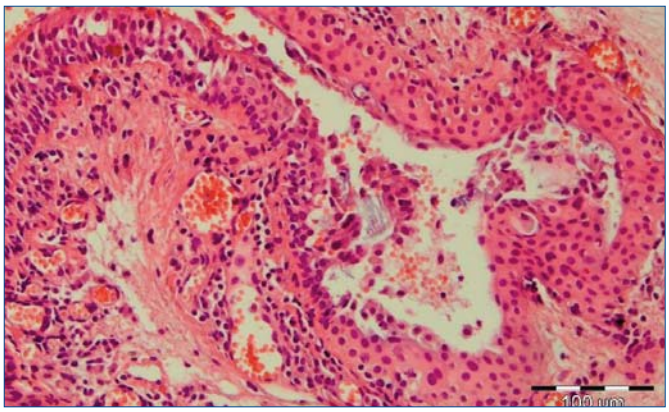

Figure 5. Invagination with squamous metaplasia of the cylindric epithelium, with partial dysplastic areas (HE, 10×)

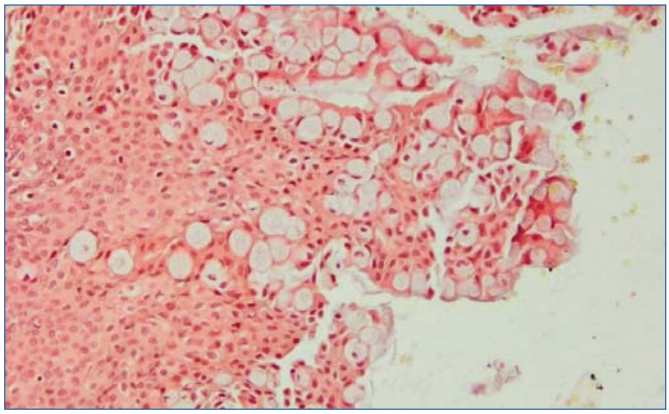

Figure 4. Abundant Goblet-cells metaplazia in the epitelium (HE, 20×)

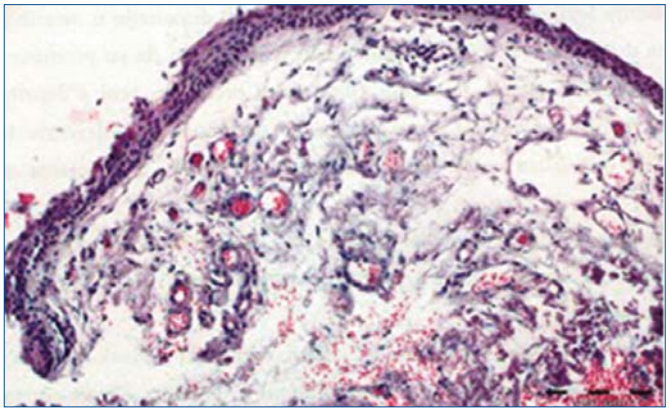

Figure 6. Highly developed vascular network, consisting of arterioles, venules and very large number of capillaries (HE, 20×

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