

Spread Of Pterygium Disease In Khorezm Region

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Summary. Pterygium is a conjunctival-corneal degeneration, accompanied by the growth of fibrovascular tissue along the surface of the cornea. Presumably, the most important provoking factor is ultraviolet radiation. In addition, the influence of factors such as changes in the tear film, imbalance of cytokines, growth factors, immunological mechanisms, genetic mutations, as well as viral diseases is being studied.

However, there may be such manifestations of dry eye syndrome as itching, burning, or lacrimation caused by uneven moisture in the ocular surface. Further spread of the pterygium into the optical zone reduces visual acuity and requires surgical treatment. Countries close to the equator (countries with high UV exposure) and people working with dust have 18-20% more cases of the disease than other countries. The study found that out of 1081 patients with pterygium disease, 355 were women and 724 were men. When studying the disease in cities and regions, it turned out that it is more common in the city of Urgench and in people aged 40-65 years. As a recommendation, the prevention of any disease, less walks in the light of the sun, dusty air and compliance with the rules of hygiene, as well as the timely conduct of comprehensive medical examinations are a necessary factor in the prevention of any disease for human health.

Key words: pterygium, elastoid dysplasia, proliferative, fibromatosis, atrophic-sclerotic, excision, adjuvant therapy, recurrence.

Relevance of the topic:

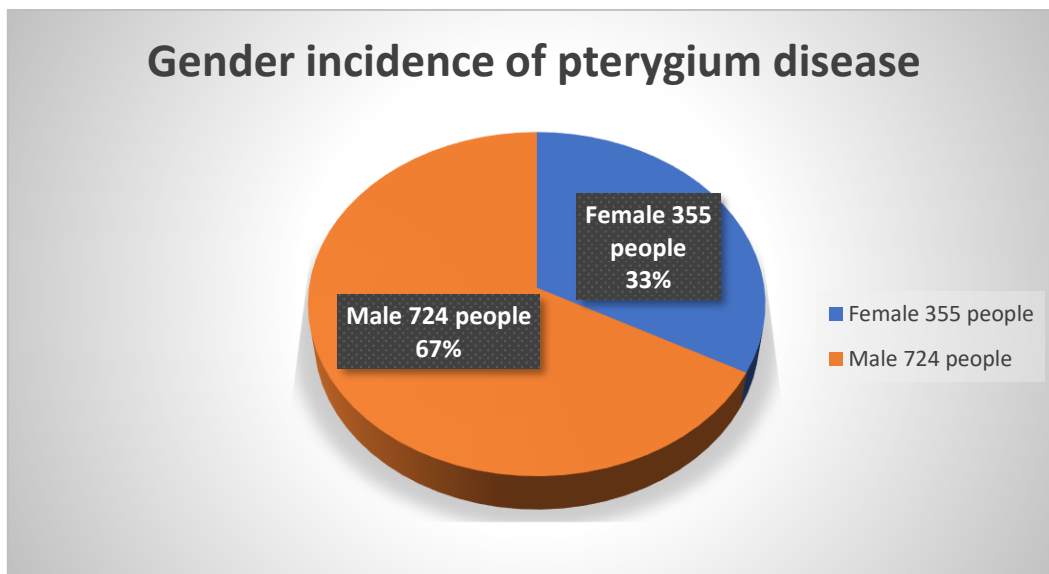
Both pinguecula and pterygium appear as submucosal elevations on the conjunctiva. They result from actinic damage and are therefore located in the sun-exposed regions of the conjunctiva (i.e., in the fissure between both the upper and lower eyelids-the interpalpebral fissure). Pterygium typically originates in the conjunctiva astride the limbus. It is formed by a submucosal growth of fibrovascular connective tissue that migrates onto the cornea, dissecting into the plane occupied normally by the Bowman layer. Pterygium does not cross the pupillary axis and, aside from the possible induction of mild astigmatism, does not pose a threat to vision. Although most pterygia are entirely benign, it is worthwhile submitting the excised tissue for pathologic examination because, on occasion, precursors of actinic-induced neoplasms-squamous cell carcinoma and melanoma-are detected in these lesions. Pinguecula, which, like pterygium, appears astride the limbus, is a small, yellowish submucosal elevation. Although the pinguecula does not invade the cornea as pterygium does, the presence of a focal conjunctival elevation near the limbus can result in an uneven distribution of the tear film over the adjacent cornea. As a consequence of focal dehydration, a saucer-like depression in the corneal tissue-a delle-may develop. ^[1]

Pterygium disease is the most common **autumn disease today**, and often it does not manifest itself for years or even decades. According to Disease Control and Prevention, people with pterygium develop chronic disorders of autumn function, decreased visual acuity (usually occurs 20-30 years after the lesion), develop corneal astigmatism, and damage to the optic zone. According to the latest data, in countries close to the equator (countries with high exposure to ultraviolet light) and people working with dust, 18-20% more cases of the disease are observed than in other countries. More than 330 million patients with pterygium have been registered worldwide.

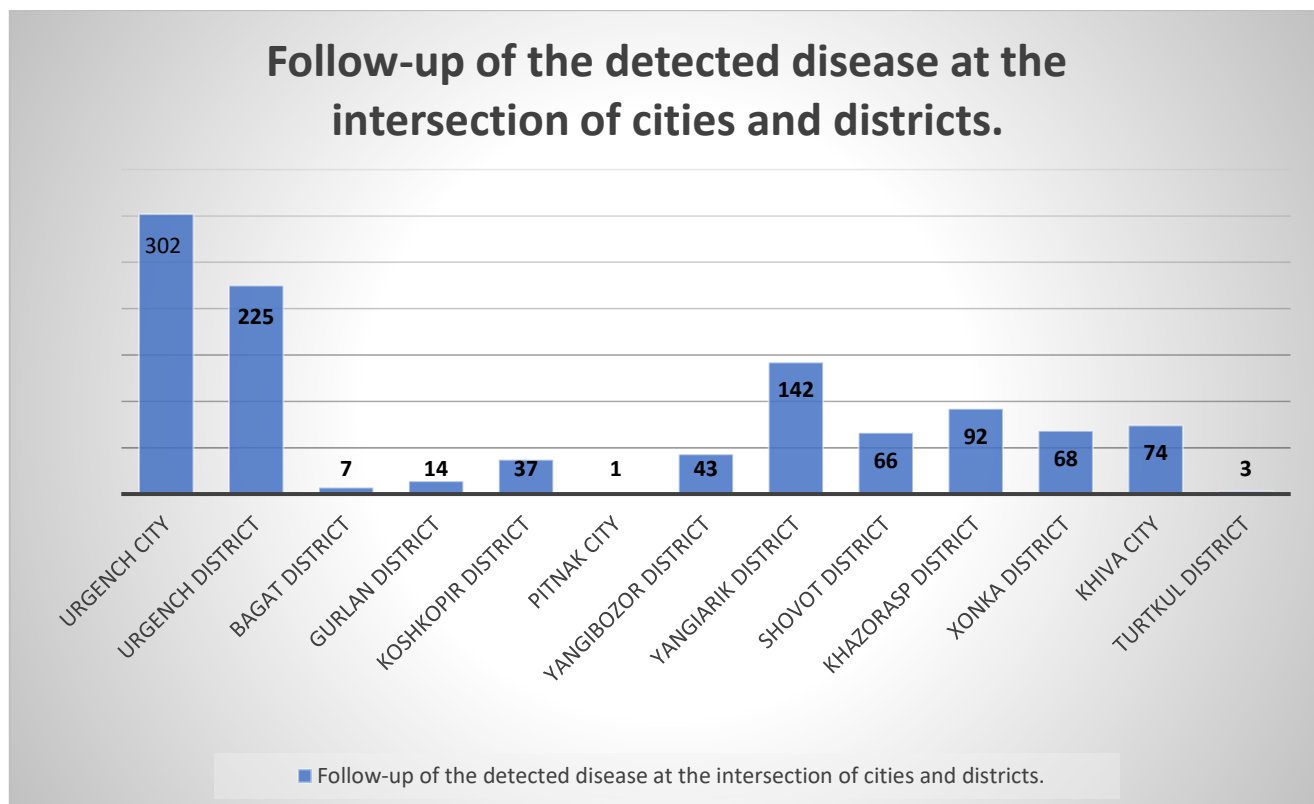
Purpose of the study: To determine the prevalence of patients with Pterygium by city and district, gender, age, and the significance of laboratory changes in the fall and the effects of ultraviolet light on the identified diseases as the goal of the study.

Examination materials: archival data and laboratory data for 2019-2020 were used as examination material in the Urgench branch of the Republican Specialized Microsurgery .

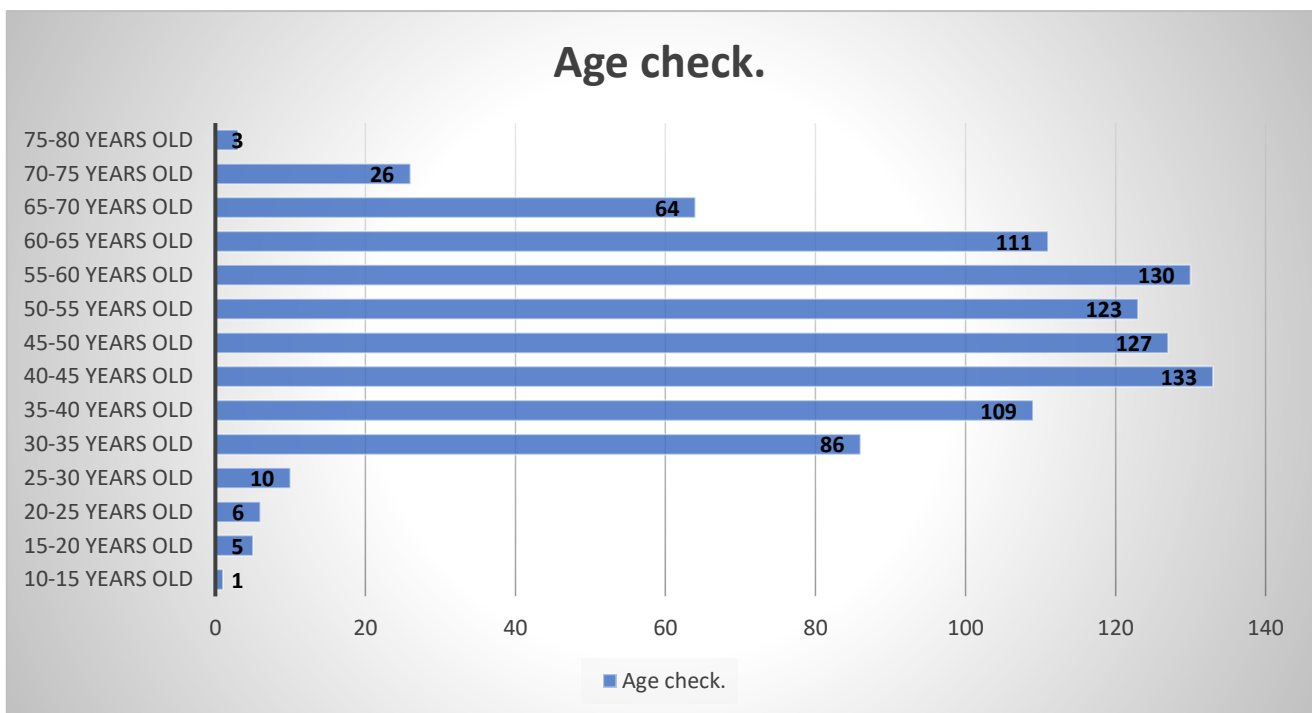
The results of the study showed that out of a total of 1,081 patients with pterygium disease, 355 were female and 724 were male



Compared to cities and districts, 302 people were diagnosed in Urgench, 225 in Urgench, 7 in Bagat, 14 in Gurlan, 37 in Koshkopir, 1 in Pitnak, 43 in Yangibazar and 142 in Yangiariq. , 66 people in Shovot district, 92 people in Khazarasp district, 68 people in Khanka district, 74 people in Khiva city, 3 people in Turtkul district.



When examining the identified diseases in the cities and districts, 8 people aged 10-15, 52 people aged 15-20, 63 people aged 20-25, 47 people aged 25-30, 86 people aged 30-35, 35-40 years old 109 people, 133 people aged 40-45, 127 people aged 45-50, 123 people aged 50-55, 130 people aged 55-60, 111 people aged 60-65, 64 people aged 65-70, 26 people aged 70-75 people, 75-80 years old were found to be 3 people.



Uzbekistan is a hyperendemic region in terms of the prevalence of the disease due to the different levels of Pterygium in the region and the ethnic specificity of the local population due to medical and social conditions (specificity of the number of family members, age structure). Screening studies conducted by a number of authors revealed that 5.6% of the healthy population surveyed in our country have Pterygium I degree and 8.3% have Pterygium II degree.

Pterygium is a common disease, and it is estimated that 10% of the world's population is affected by this disease. Pterygium is more prone to high levels of exposure to dust and ultraviolet light than other fall diseases. Pterygium is the main cause of all chronic autumn diseases, dry autumn syndrome, corneal astigmatism, optic zone damage and many other diseases.

Pterygium is a pathological process of the conjunctiva, characterized by the growth of a duplicate of the conjunctiva on the cornea. The pterygium mainly grows from the nose towards the cornea and is more common in older people. The pterygium consists of 3 parts: head, body and tail. The anterior margin of the flat zone above the body cornea is composed mainly of fibroblasts that grow into the Bowman membrane. The head is the vascular part of the pterygium, which is located at the back of the body and is tightly attached to the membrane. Fibroblasts that reach the anterior stroma of the cornea (below the Bowman membrane) can be activated by ultraviolet light. However, the presence of a tenon capsule depresses the attachment of the episcleral portion of the pterygium to the main sclera. The mobile zone of the tail-bulbar conjunctiva can be easily separated from the base tissue. Histological examination of the pterygium reveals several specific features: inflammatory cells, neovascularization, remodeling of the extracellular matrix, conjunctival inner substance elastoid degeneration (substantia propria) with eosinophilic or basophilic cells, fibrous cells of type I and IV elastoid dysplasia), degeneration of elastin fibers (elastin dystrophy), epithelial hyperkeratosis, parakeratosis or acanthosis, changes in epithelial limbal cells. These histological features allow the pterygium to be divided into 3 types: proliferative, fibromatous, and atrophic-sclerotic.

Pterygium disease is considered multifactorial. Of these, hereditary, ultraviolet light exposure, cytokine exposure, and chronic inflammation play a major role. Since the air in Khorezm is sunny and slightly dusty, ultraviolet radiation may be an important trigger. This is because cell proliferation has been observed

under the influence of ultraviolet light. Many studies show geographical differences in the disease. The disease is more common in countries near the equator.

Classification of pterygium: divided into 5 groups according to length. Grade I - primary, growth is limited to lim. Level II - grows between the pelvis and the limb, the visual acuity is 0.9-0.7. Level III - up to the edge of the cortex, the visual acuity is 0.5. IV degree - pterygium grows to the center of the cornea, the permeability is 0.3-0.2. Grade V - pterygium grows to the center of the cornea and can be overcome, the visual acuity is less than 0.1. According to the modern classification of foreign authors, the developmental trend of the pterygium in relation to the epithelial vessels of the pterygium:

Grade I - pterygium transparent, atrophic, the veins from the episclera appear thematic.

Grade II - moderately active, pterygium transparent, atrophic, partially visible vessels from the episclera.

Grade III - very active, pterygium is not transparent, atrophic, the vessels of the episclera are not visible.

At the onset of the disease, the pterygium is usually asymptomatic. However, due to uneven moisture on the autumn surface, there may be signs of dry autumn (irritation, shrinkage or fall onset). The growth of the pterygium leads to the formation of astigmatism and affects the uptake zone. An increase of more than 3.5 mm leads to damage to the cornea (usually half the radius of the cornea) and astigmatism leads to a visual impairment associated with more than 1 diopter.

Treatment.

Surgery. A Cochrane review found conjunctival autograft surgery was less likely to have reoccurrence of the pterygium at 6 months compared to amniotic membrane transplant. More research is needed to determine which type of surgery resulted in better vision or quality of life. The additional use of mitomycin C is of unclear effect. Radiotherapy has also been used in an attempt to reduce the risk of recurrence.

Auto-grafting

- Conjunctival auto-grafting is a surgical technique that is an effective and safe procedure for pterygium removal. When the pterygium is removed, the tissue that covers the sclera known as the Tenons layer is also removed. Auto-grafting covers the bare sclera with conjunctival tissue that is surgically removed from an area of healthy conjunctiva. That "self-tissue" is then transplanted to the bare sclera and is fixated using sutures or tissue adhesive.

Amniotic membrane transplantation

- Amniotic membrane transplantation is an effective and safe procedure for pterygium removal. Amniotic membrane transplantation offers practical alternative to conjunctival auto graft transplantation for extensive pterygium removal. Amniotic membrane transplantation is tissue that is acquired from the innermost layer of the human placenta and has been used to replace and heal damaged mucosal surfaces including successful reconstruction of the ocular surface.
- Using an amniotic graft facilitates epithelialization, and has anti-inflammatory as well as surface rejuvenation properties. Amniotic membrane transplantation can also be fixated to the sclera using sutures, or glue adhesive. Amniotic membrane by itself does not provide an acceptable recurrence rate.

Conclusion:

Instead of a conclusion, it can be said that Pterygium disease is more common among men than among women (724 people). Examination of the disease in cities and districts revealed that it is more common in the city of Urgench and in people aged 40-65 years. As a recommendation, prevention of any disease, less walking in dusty, dusty air and adherence to hygienic rules, as well as timely conduct of comprehensive medical examinations are necessary factors for the prevention of any disease.

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