

DRY EYE SYNDROME AND THE FACTORS THAT CAUSE IT

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Abstract: Dry eye syndrome is a common disease characterized by rapid drying of tear fluid. Due to the decrease in the quality and quantity of tears, the surface of the cornea is not well moisturized, resulting in the appearance of microcracks and wounds. The disease causes a sharp decrease in visual acuity, so it requires treatment.

Key words: Dry eye syndrome, factors, ophthalmologists, syndrome, layer, basic diagnosis.

QURUQ KO'Z SINDROMI VA UNI KELTIRIB CHIQRUVCHI OMILLAR

Annotatsiya: Quruq ko'z sindromi keng tarqalgan kasallik bo'lib, ko'z yoshi suyuqligining tez qurishi bilan tavsiflanadi. Ko'z yoshi sifati va miqdorining pasayishi tufayli shox pardaning yuzasi yaxshi namlanmaydi, natijada mikro yoriqlar va yaralar paydo bo'ladi. Kasallik ko'rish o'tkirligining keskin pasayishiga olib keladi, shuning uchun davolanishni talab qiladi.

Kalit so'zlar: Quruq ko'z sindromi, omillar, oftalmologlar, sindrom, qatlam, asosiy diagnostika

СИНДРОМ СУХОГО ГЛАЗА И ФАКТОРЫ, ЕГО ВЫЗЫВАЮЩИЕ

Резюме: Синдром сухого глаза – распространенное заболевание, характеризующееся быстрым высыханием слезной жидкости. Из-за снижения качества и количества слез поверхность роговицы недостаточно увлажняется, что приводит к появлению микротрещин и ранок. Заболевание вызывает резкое снижение остроты зрения, поэтому требует лечения.

Ключевые слова: Синдром сухого глаза, факторы, офтальмологи, синдром, слой, базовый диагноз.

Dry eye syndrome (xerophthalmia) is a pathological condition characterized by insufficient hydration of the cornea and conjunctiva due to the instability of the tear film and lack of tear fluid. The eyes constantly produce glasses, and these glasses perform the function of keeping the surface of the eyes moist. In people with dry eye disease, the glasses do not produce enough, or the glasses evaporate before they can moisturize the surface of the eye. Some have both. As a result, the eyes become dry and squinting. Cataract is recognized by ophthalmologists as one of the most common diseases. This disease is observed in 30 percent of people over 50 years old. Typical symptoms of dry eye syndrome include dry, sore, gritty eyes. Symptoms can also be described as itchy eyes, a scratchy feeling, and eye conditions that occur when you are tired. Additional symptoms include pain, redness, and increased pressure in the eye. Usually both eyes are affected. Dark secretions are observed to separate and accumulate in the eyes. The reason for this is the hyperexcitability of the eye. Unusually, dry eye syndrome can even increase tear production. Sometimes, when foreign objects fall into the eye, the tear glands work hard and produce more tears, but the composition of such tears is more normal water. The composition of tears in dry eye syndrome is different from tears in emotional situations.

However, unfortunately, many people do not pay attention to dry eye disease, see it as a sign of old age, do not try to treat or prevent it. The front surface of a healthy eye is covered by a complete tear film with a thickness of about 10 μm . This film protects the eyes from the negative effects of the environment, dust and other small foreign bodies, and also supplies the cornea with nutrients and oxygen, creating a natural immune barrier against infections. The mucous layer is produced by the goblet cells of the conjunctiva and covers the cornea, making its surface smooth and flat; its function is to maintain the tear film in the corneal epithelium; the thickness of this layer is 0.02-0.05 microns, which is only 0.5% of the thickness of the film;

The aqueous (aqueous) layer is produced by the lacrimal glands and consists of biologically active substances and dissolved electrolytes; is constantly renewed and provides nutrients and oxygen to the cornea and conjunctival epithelium, as well as ensuring the removal of carbon dioxide molecules, metabolic waste and dead epithelial cells. The thickness of this layer is about 7 microns, which is more than 90% of the tear film;

Lipid layer-covers the outer part of the aqueous layer and is produced by the meibomium glands; responsible for sliding the upper eyelid and protecting the eyeball, preventing evaporation of the aqueous layer and excess heat transfer from its epithelium.

On average, once every 10 seconds, the tear film begins to crack and Blink, as a result of which the tear fluid is renewed and the film is restored. The eyelid moves along the surface of the cornea, smoothing the tear film and clearing the cornea of exfoliated epithelial cells and foreign appendages. At the same time, blinking stimulates the production of tear fluid by the glands. Within a minute, about 15% of the entire tear film is renewed and 8% evaporates. Dry eye syndrome often develops with several tears in the tear film, resulting in excessive dryness of the cornea. The causes of such cavities can be various factors: too rapid evaporation of the film, violation of the secretion of musins, lipids and lacrimal fluid. This

syndrome is diagnosed in 10-20% of the population and is more common in women (70% of cases). The frequency of the disease is directly proportional to age: only in 50% of cases it corresponds to the age of up to 12 years. 42-43% of people with this syndrome notice a significant deterioration in vision, have difficulty reading. Symptoms of a possible "dry eye" syndrome develop in both eyes at the same time. The most common symptoms that patients complain about are dry and itchy eyes after a long stay in a room with low humidity or after working at a computer and using gadgets. These signs are the main diagnostic criteria. In addition, people with DES can be bothered by situations below:

- shox pardaning quruqligi va ko'zning qichishishi hissi, yonish hissi
- "ko'zlardagi qum" kompyuterda uzoq vaqt ishlagandan so'ng miltillashda ko'z qovoqlarining qarshiligining oshishi
- ko'zning oqsil qoplaminig qizarishi fotofobiya
- lakrimatsiyaning kuchayishi
- ko'z qovoqlarining charchashi, shishishi va qizarishi
- ko'z qovoqlari orqasida begona jism hissi ko'rishning noaniqligi
- ob'ektlarga e'tibor qaratish uchun zarur bo'lgan vaqtning ko'payishi.

In contact lens users, the origin of dry eye syndrome can be attributed to two different conditions: absorption (absorption) of tears produced by soft lenses that "float" over the cornea of the eye. Recent scientific research shows that lenses cause a decrease in nerve sensitivity of the cornea, and as a result, young production is disrupted. Lenses of any type, especially hard contact lenses, cause a decrease in intuition at the end of the nerve. Dry eye syndrome causes the eye to dry out after laser keratotomy and other refractory surgeries that remain for several months, sometimes for a lifetime. In this, the nerve endings in the cornea are damaged, and the young separation function decreases. Eye injuries or other problems with the eyes and eyelids, including exophthalmia, upper eyelid ptosis, can also lead to dry keratoconjunctivitis. In this case, in diseases of the eyelids, the opening and closing of the eyelids is disrupted, and eye hydration is reduced. Lipid layer abnormalities of the tear caused by blepharitis and mucin floor abnormalities of the tear (vitamin A deficiency, trachoma, diphtheria keratoconjunctivitis), other diseases of the skin, mucous membrane also play a role in the development of dry eye syndrome. A number of methods can be used to treat dry eye syndrome. They can be described as follows:

- * trigger factor restriction
- * stimulate tear release
- improve age retention in the eye, that is, maintain moisture
- * pumpkin peeling
- * elimination of inflammatory eye diseases.

The drying of the eyes can be exacerbated by dust, dim air and air conditioning. Moreover, when sitting for a long time in front of the computer, reading a book, the eye dries even when the eyes are tired. In these cases, it is necessary to increase the opening by closing the eyes, ensuring eye hydration. Avoid unfavorable conditions. It is necessary not to stand for a

long time in dusty, dry and smoky air, for example, when using a fan, opposite various heating ovens, to avoid them when exposed to the wind of fans, especially if they are directed towards the eyes.

Recommendations

- To relieve eye dryness, you should pay attention to:
 - Keep your eyes open and close exercises often when you have to work steadily near a computer or any other electronic device;
 - * Wearing glasses that protect the eyes from dust and wind in hot and dry weather;
 - Tobacco smoke escape;
 - Not sitting under the airflow of the air conditioner;
 - Using a humidifier (uvlajnitel) that hydrates the air content in the room with the most time consuming;
 - Special attention to the correct use of contact lenses.

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