Application of standards in the corneal lesions

Xiangyu Shi

Kunming iwe eye hospital, Kunming, 650032, China

Abstract

Laser Scream (LASIK) is a safe and effective treatment method that brings light and hope to many patients. As a minimally invasive surgery, it has the advantages of fast postoperative recovery, good vision, and fast vision recovery, so that patients can achieve the ideal correction effect in a short period of time. With the advancement of science and technology, its clinical applications are becoming wider and wider, mainly used for preoperative examination and treatment after corneal refractive surgery. This article reviews the application of molecular laser surgery in corneal disease in order to provide a reference for clinicians.

Keywords

Standard laser; cornea; application.

1. Corner

The tapered cornea is a kind of performable conical disease that affects the vision. It is mainly manifested as thinner in the center of the cornea and collapse of the front surface. Its clinical manifestations mainly include decreased vision, littering, visual deformation, and corneal membrane turbidity. Its main pathological changes have changed to thinning the matrix layer, rupture of the front elastic layer, thinning in the center of the cornea, and damage to the front elastic layer is an important cause of the disease. Due to the early clinical symptoms of cone angle, many patients missed the best time for treatment.

Strick laser surgery of cone angle can reduce the symptoms of patients to a certain extent and improve the patient's visual quality. LASIK surgery is an important means to treat conical cornea. It can improve the patient's vision by correcting the axis length of the patient. At present, there are mainly LASIK surgery: ① Lasek; ② LASKP surgery; ③ Lasek+ RKP surgery; ④ Lasek+ ICL (L) implantation. Although these operations are performed in the corneal matrix layer, the patient's vision is improved by changing the curvature of the front surface of the cornea, so it is still considered a safe and effective treatment method.

2. Corneal white spots

Corneal white spots are abnormal thickening of the extracellular substrate of the corneal epithelium, which belongs to a special type of keratitis. At present, the treatment of corneal white spots clinically is mainly surgical therapy. The surgical method includes corneal plate layer resection, standard molecular laser corneal cutting, and perbalplaxia migration of standards. Among them, the spare laser epidemic movement is a minimally invasive surgery that has good safety because it does not use a operating knife and other equipment. Because the operation involves only conjunctiva, it will not have any impact on the cornea structure, which avoids damage to the acurisiture integrity. However, during the surgery, because the conjunctiva needs to be separated and exposed, it may have a certain degree of impact on the patient's vision. In addition, due to the early corneal epithelial adhesion, there may be problems such as tear secretion abnormalities.

Studies have found that the treatment of corneal white spots in the treatment of sculpenic laser epithelial flap is an effective and safe surgical method. The surgical method can fully separate and expose the underin tissue, thereby avoiding the destruction of corneal integrity. However, because the surgery needs to be separated under the conjunctiva, there will be problems such as tear secretion abnormalities after surgery. Studies have shown that patients' vision of patients was 96.8%, 92.6%, and 90.1% at 3 months, 6 months, and 12 months after the operation. Compared with 1 year after surgery, patients had no significant difference in vision after surgery. However, the impact of the operation on the secretion of tears still needs further research.

3. Corneal malnutrition

Corneal malnutrition is a rare genetic disease with a incidence of about 1/100,000. Its typical clinical manifestations include decreased vision, thinning in the center of the cornea, irregular astigmatism, and conical cornea. The main causes of corneal malnutrition include three types of heredity, congenital, and acquisition. Among them, it is more common, accounting for about 85% to 90%. It is mainly manifested as the integrity of the corneal epithelium, and irregular sheet or nodular exfoliation and ulcers occur.

Corneal malnutrition is generally treated with standard laser corneal cutting (PKS) for treatment. Compared with other technical types, the performers of the excimer laser cornea have the following advantages: (1) can obtain high postoperative luminousness, which is related to the exclusive laser cutting wavelength it used; Cutting, thereby avoiding contact with normal tissue, avoiding tears and foreign body sensations caused by the stimulation of the eye after surgery; (3) no need to remove the epithelial layer during surgery, avoiding postoperative vision decreases caused by the loss of epithelial cells.

4. Tarnery cornea with corneal white spots

The conical cornea is a kind of blind -blind disease. Its main characteristic is that the cornea becomes thinner, irregular, and the central level is flat. Among patients with tanned cornea and white spots, 20% to 30% of patients may be combined with corneal lesions, and more than 60% of patients have visual decline or even blindness. Therefore, for patients with conical cornea with corneal white spots, if surgical treatment cannot be performed, it is recommended to review regularly.

Lasik is a minimally invasive surgery that has the advantages of short operation time, fast postoperative recovery, and good visual quality. The rapid recovery of early vision after surgery can significantly improve the quality of life of patients. In recent years, with the development of integrated laser technology and people's emphasis on visual quality, more and more patients with tapered corneal corneal white spots have also been treated with LASIK. Treatment of conical cornea with corneal white spots through LASIK surgery can effectively improve the visual quality of patients.

4. Corneal transplantation after surgery

Corneal transplantation is a safe and effective treatment method. However, after corneal transplantation, complications such as corneal turbidity and transplanted flaps often occur. Standard laser therapy can improve the transplanted flap displacement by changing the curvature, thickness and thickness of the substrate layer layer. In recent years, there have been more and more studies of integrated complications after the treatment of corneal transparency. Related research shows that the occurrence of complications of postoperative stamina after laser therapy is closely related to the thickness of the corneal, the number of plants, and the choice of the migrant. Tan et al. Through comparative standard laser surgery and traditional

implant surgery, it was found that the incidence of the edge of the implantation of the implant after the integrated laser surgery was significantly lower than the incidence of the edge of the traditional plantation. Studies such as DUDA found that after laser surgery, the thickness of the elastic layer before the corneal edge increased an average of 1.06 mm (P <0.05). Studies have shown that the occurrence of integrated complications after laser treatment may be related to improper selection of transplanted petals, the number of plants, and the selection of planting. In order to reduce the occurrence of these complications, it is necessary to conduct a detailed evaluation of the transplanted cornea, including the eye meter and structural morphological examination. Studies have shown that the incidence of bonding the edge of the implant after laser treatment is lower than the incidence of the edge of the traditional implant, and the increase in the number of implants is related to the improper selection of transplants and the edge of the implant.

5. Summary and outlook

Standard laser corner refractive surgery (LASIK) has become the main means to correct refractive incorrectness. Its surgical safety and effectiveness have been widely recognized, but there are still many problems to be resolved. First of all, when corrected the vision during the ideal surgery, the thickness of the corneal center area must be thin enough to avoid tapered cornea after surgery. At present, LASIK has been widely used in refractive treatment and has achieved good results. However, there are still many problems that need to be solved. For example, for patients with thinner myopia or corneal, postoperative complications are also common. This is mainly because the current lack of clinical research to determine the best correction vision of patients after LASIK, and whether myopia is related to corneal thickness. Therefore, future research should focus on how to improve the effect of LASIK and reduce the occurrence of complications. In addition, in recent years, due to the increase in corneal disease patients and the lack of understanding of LASIK, the incidence of postoperative complications in LASIK increased. In the future, research should be committed to finding more safer, more effective, and more economical methods to help more patients improve vision quality.

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ISSN: 1813-4890

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