

Effect Analysis of Medicine and Hot Compress Treatment for Xerophthalmia after PHACO+IOL Surgery

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Abstract: Objective: To explore the clinical effect of medicine + hot compress on xerophthalmia after PHACO + IOL operation and summarize the nursing intervention measures. Methods: From July 2018 to October 2019, 200 patients with xerophthalmia admitted to our hospital were randomly divided into the control group and the study group. The patients in the control group were treated with routine treatment and nursing, and the patients in the study group were treated with medicine + hot compress. One month later, the efficacy and nursing satisfaction of the two groups were compared. Results: The curative effect of the study group was higher than that of the control group ($P < 0.05$), and the nursing satisfaction of the study group was higher than that of the control group ($P < 0.05$). Conclusions: The effect of medicine + hot compress on Xerophthalmia after PHACO + IOL operation is significant, and this method can be widely used in clinic.

1. Introduction

Cataract is a kind of common ophthalmic disease, which can easily lead to blindness or visual disability. With the continuous improvement of China's medical level, PHACO combined with IOL is the most advanced cataract surgery, which is increasingly promoted in China [1]. However, cataract causes severe damage to patients' vision, which causes great inconvenience to patients' psychological, physiological and social activities. Therefore, in order to improve the clinical treatment effect, it is necessary to continuously strengthen nursing intervention. Xerophthalmia refers to the abnormal quality or quantity of tear caused by any reason, or the pathological changes of ocular surface caused by the abnormal fluid dynamics, and accompanied by eye discomfort and visual dysfunction. It is a common ocular surface disease that affects people's quality of life. The main clinical symptoms are xerophthalmia, burning sensation, foreign body sensation, visual fatigue and photophobia, among which xerophthalmia and visual fatigue are the most common. People with severe xerophthalmia disease may be blind, and seriously affect the work and life of patients in daily life. Xerophthalmia is caused by many internal and external factors such as heredity and environment. It refers to a kind of disease caused by some reasons, such as abnormal tear quality or tear volume, defects of meibomian gland, greatly reducing the stability of tear film, blocking the catheter at the end of eyelid, causing discomfort to the eyes or pathological changes of eye tissue. Xerophthalmia disease may lead to inflammation and eye damage, while severe patients may affect vision level or even cause blindness. Xerophthalmia disease is the most common eye disease in the normal population, which directly affects the health level of patients. In recent years, the use of drugs + hot compress in the treatment of PHACO + IOL xerophthalmia after surgery has received great attention in the clinical field, because the substances in traditional Chinese medicine can improve the treatment effect and alleviate Xerophthalmia symptoms [2]. In this study, 200 patients with xerophthalmia after PHACO + IOL operation were treated with medicine and hot compress, and satisfactory results were obtained.

2. Materials and Methods

2.1. Materials.

At present, PHACO combined with IOL implantation has been gradually popularized in China. Compared with the traditional operation, it has the advantages of simple operation, small iatrogenic injury, etc. only corneal incision, surface anesthesia can be performed, and the complications are relatively less. The refractive state after surgery is the key to the success of surgery. The corneal lens is the main refractive medium of the eyes, and any change of it will affect the refractive state of the eyes. PHACO combined with IOL implantation not only damages the cornea, but also replaces the original lens with IOL, which will inevitably affect the refractive state of the cataract patients after surgery [3]. Corneal curvature, corneal refraction and surgical astigmatism are important indexes to evaluate the refractive status after cataract surgery. Postoperative astigmatism is the sum of the vectors of surgical astigmatism and preoperative astigmatism. After cataract surgery, the curvature of the cornea on the vertical diameter line increases, resulting in the regular astigmatism. The wound heals continuously after surgery, increasing the curvature of the cornea on the horizontal diameter line, resulting in the tiny irregular astigmatism. The incision above the cornea is easy to produce irregular astigmatism, while the temporal incision is easy to produce regular astigmatism. Surgical astigmatism is inevitable in most ophthalmic operations, and it is also the main reason that affects the vision recovery of cataract patients. In this study, the method of vector analysis is used to calculate the surgical astigmatism. The astigmatism and axial variation are analyzed together. The cosine theorem formula is used [4]. Although the calculation is more difficult, it is more reliable than the simple method. Some studies have pointed out that the astigmatism degree after cataract surgery is positively related to the length of corneal incision. The longer the incision is, the larger the astigmatism is. However, the 3.2mm transparent corneal tunnel incision is located in the limbus of cornea, far away from the pupil area. No suture is needed during the operation, and the memory structure of corneal dome is not damaged during the operation. It can better maintain the corneal shape in the early postoperative period, reduce the surgical astigmatism, and contribute to the early postoperative vision force recovery. PHACO combined with IOL implantation was performed in cataract patients in our hospital. It was found that the visual acuity was significantly improved, the depth of anterior chamber was deepened, and there was no significant change in corneal curvature and astigmatism.

From July 2018 to October 2019, we selected 200 patients with dry eye admitted to The Second Affiliated Hospital of Qiqihar Medical University. We randomly divided the patients into two groups: control group and study group. There were 44 males and 56 females in the study group, aged 40-52 years, with an average age of (46.23 ± 6.45) years. In the control group, there were 48 males and 52 females, aged 39-53 years, with an average age of (46.16 ± 7.57) years. There was no significant difference in gender and age between the two groups ($P < 0.05$). Approved by the hospital ethics committee. The patients or their families have informed consent to the study and signed the informed consent. The following patients were excluded from the experimental study: Patients with severe heart, lung, liver, kidney and other organ diseases. Other conjunctival, corneal and iris diseases were found. Previous history of eye surgery. History of drug allergy or emergency.

2.2. Methods.

The patients in the control group were treated with routine therapy. The patients in the study group were treated with medicine + hot compress on the basis of routine therapy. The patients in the control group were treated with eye drops on time 4 times a day for 1 month. The patients in the study group were treated with medicine + hot compress on the basis of routine therapy to treat PHACO + IOL. The reasonable nursing plan was formulated. The specific methods were as follows: The main symptoms of the patients with dry eye were recorded, such as whether they had burning sensation, astringent vision or not Blurred eyes itch, etc. Because of the patient's eyes, the patient may have resistance to the treatment process, so it is necessary to pacify the patient in time, eliminate the

patient's bad mood, and improve the patient's cooperation. The first is to apply hot towels to the eyes of 20min, then adjust the temperature and distance of the nebulizer. After disinfection, smoke the eyes of the patients, 15min/ times, then massage the body for the patients, massage the waist, silk, hollow, temples, Qingming, and tears, and then massage the pupils 30 times, starting with a continuous 3D of 1 time a day, then changing to the next day. Once, 10 times is a course of treatment. At the same time, the patients in the two groups were informed to pay attention to the eye health in the future. After one-month treatment, we compared the efficacy of the two groups. If the dry eye symptoms disappear, it is effective; some eye symptoms are relieved, it is effective. Some eye symptoms are not relieved, which is ineffective. The clinical effect, syndrome score, tear secretion, tear rupture time and keratopathy degree of the two groups were analyzed. The establishment of clinical efficacy evaluation criteria is effective with reference to relevant literature. The clinical symptoms basically disappeared, and the lacrimal secretion test was more than 10 mm /5 min. Effective: the clinical symptoms were improved, the amount of lacrimal secretion measured many times by lacrimal secretion test was increased; ineffective: the symptoms were not significantly improved or even worsened, and the amount of lacrimal secretion measured many times by lacrimal secretion test was not increased. The main symptoms of dry eye such as astringency, foreign body, fatigue and burning were scored according to the symptom severity. The higher the score, the more serious the symptom. The two groups were divided into three levels: satisfaction, basic satisfaction and dissatisfaction. We used SPSS 22.0 statistical software to compare the rank data. The rank sum test level of two independent samples was 0.05.

3. Results

Table 1. Treatment effectiveness comparison of xerophthalmia of two groups

Group	Cases	Markedly effective	Effective	Ineffective
control group	100	37	41	22
study group	100	55	44	1

The μ value of the comparison was 2.514 and the P value was 0.036, which met the experimental standard.

Table 2. Satisfaction comparison of xerophthalmia of two groups

Group	Cases	Satisfied	Moderately satisfied	Dissatisfied
control group	100	37	41	22
study group	100	55	44	1

The μ value of the comparison was 2.025 and the P value was 0.041, which met the experimental standard.

4. Discussion

With the continuous improvement of people's quality of life, people pay more and more attention to the health level. Along with the convenience of electronic products for people, the harm of electronic products to the eyes is also gradually increasing. People focus on computers and mobile phones for a long time, so that the secretion of tears is greatly reduced, which leads to tears cannot infiltrate the eyes. At the same time, people's eating and rest habits are not regular, which leads to the incidence of dry eye disease greatly increased, and the age of onset is getting lower and lower, so we need to take certain treatment measures to prevent dry eye disease.

Strengthen nursing intervention, actively cooperate with relevant doctors for operation, adjust the

position of operating microscope, pay attention to setting the phacoemulsification instrument on the operating table, configure various parameter values, and adjust the negative pressure switch in time according to the relevant requirements of the carpenter, so as to assist doctors to complete the operation. In this series of process, strengthen the psychological care of patients, minimize the anxiety and depression of patients and other psychological emotions, through the construction of a harmonious relationship between nurses and patients, so as to promote the operation of patients' doctors, which is helpful to improve the clinical treatment effect. With the continuous development of modern microsurgery technology, many clinical research data show that psychological care and health awareness rate care for cataract patients undergoing PHACO combined with intraocular lens implantation, to some extent, can eliminate the adverse psychological skin reactions of patients and their families, make them actively cooperate with relevant medical staff for effective treatment, and improve the compliance of treatment. At the same time, during and after the operation, strengthening the nursing intervention can reduce the incidence of postoperative complications, which has become an important work to improve the success rate of the operation. In essence, strengthening the nursing cooperation during the operation can effectively reduce the operation time, improve the operation quality, and shorten the inpatient rehabilitation time.

For dry eye patients, massage and hot compress can effectively relieve the meibomian gland in the eyes of patients, dredge the catheter inside the meibomian gland, accelerate the secretion of eye lipid, and recover the lack of tear film lipid layer. On the basis of massage and hot compress, traditional Chinese medicine atomization and eye fumigation can make the components of traditional Chinese medicine work in the eyelid gland. The residual temperature after hot compress can make the eyelid gland more easily absorb the components of traditional Chinese medicine, accelerate the speed of blood circulation in the interior, effectively discharge the lipid, alleviate the inflammation of the eye, and obtain the best treatment effect. Even if the use of traditional Chinese medicine atomized eye fumigation and massage hot compress has a good effect on the treatment of patients with dry eye disease, but because some patients do not understand the treatment measures and the late effect of treatment, they cannot actively cooperate with doctors, which causes obstacles in the treatment process, and then affects the final treatment effect. At the same time, because the course of dry eye disease is relatively long and the recurrence is high, the patients with dry eye disease will produce many negative emotions, so that the treatment process will be interrupted. Therefore, in the treatment of dry eye disease patients with traditional Chinese medicine atomization fumigation and massage hot compress, it should be combined with reasonable nursing intervention to achieve the physiological and psychological requirements of patients, so that the patients can protect in the whole treatment process. In order to achieve better therapeutic effect, we should keep a pleasant mood and increase the therapeutic cooperation.

Research shows that the treatment of dry eye patients with medicine + hot compress can improve the efficacy and satisfaction of patients' families. In this study, the efficacy and satisfaction of the patients in the study group were significantly higher than those in the control group record the abnormal symptoms and tear film damage of the patients, and estimate the time and temperature needed for hot compress. Secondly, give psychological guidance to the patients. Because patients with dry eye have pain in the eyes and unclear vision in the process of onset, they will have anxiety and depression. Therefore, in the process of treatment, it is necessary to conduct timely psychological counseling for patients to tell the specific operation of dry eye, so that patients can more comply with the treatment process. Third, massage the meibomian gland of the patients and use Chinese medicine atomization to fumigate the eyes of the patients. After applying hot towel to the eyes of patients, massage the eyes of patients with massage stick, and then fumigate the eyes of patients with medicine atomizer. Fourth, drug use methods and health knowledge publicity. Explain the steps of correct use of eyedrops to patients, and inform patients of the harm and impact of wrong use of eyedrops on dry eye, remind patients to pay attention to eye health, forbid eating spicy and irritant food, and develop correct eye use methods. Fifthly, the indexes of patients after treatment were recorded in time. The results of this study show that the use of medicine + hot compress to treat dry eye is the most effective and simple treatment method at present. This method can make patients with dry eye more compliant

with the treatment process, so that patients in the treatment process of resistance and pain relief.

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