

Study on the Diagnosis and Treatment of Retinal Vein Occlusion

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ABSTRACT Objective: Study on the diagnosis and treatment of retinal vein occlusion. **Method:** 96 patients with retinal vein occlusion in our hospital from April 2014 to February 2015 were retrospectively analyzed. A total of 48 patients ($p > 0.05$) were randomly divided into observation group and control group. The control group was treated with traditional medicine, while the observation group was treated by surgery. The two groups were treated with predictive nursing. **Results:** The result from control group of 48 patients and the observation group of 48 patients were changed after a period of treatment but the control group was not significantly improved compared with the observation group. **Conclusion:** The clinical effect of observation group operation treatment of retinal vein occlusion is remarkable, so the study of its significance is far-reaching, and it is worth to be popularized and applied in clinic.

KEYWORDS

Retinal vein occlusion
Application research
Psychological care

1. Introduction

Retinal vein occlusion is a severe disease where the blindness rate is extremely high, and the incidence in the elderly population is more concentrated. Analysis of the reasons may be due to the elderly patients with hypertension, hyperlipidemia, atherosclerosis and other chronic diseases which leading to a relatively narrow blood flow. When blood flow velocity is slow, it will cause retinal vein blood stasis, venous dilatation, blood flow around the inner vessels appears, bleeding symptoms and thus visual acuity decreased. Some studies have indicated that the abnormality of blood rheology index is closely related to the pathogenesis of retinal vein occlusion [1]. Abnormal blood rheology can lead to retinal microcirculation disturbance, blood flow velocity slowed down, vein dilation, tissue ischemia and hypoxia. At present, surgery has become one of the means of retinal vein occlusion where it can inhibit the development of adverse complications and other adverse effects. Besides, surgery would reduce the patient's pain, improve patient's quality of life, and usually if early treatment,

the effect is more significant. So in our hospital from April 2014 to February 2015, there were 96 cases of retinal vein occlusion in patients were selected and be as subject and treated with selected treatment. From the study, the effect is significant and the specific report is reported as follows.

2. General information and methods

2.1. General information

A total of 96 cases of retinal vein occlusion patients were choose from April 2014 to February 2015 in our hospital for clinical treatment and are in line with the relevant diagnostic criteria in the Department of Ophthalmology with the exclusion of drug allergy history, blood coagulation dysfunction, liver and kidney dysfunction and recent surgery. **Methods:** For the control group there were 48 cases of patients with retinal vein occlusion including 22 cases of male patients, 26 cases of female patients, aged from 45 to 71 and the average age is ± 48 . Conversely, for the observational group there 48 cases of patients with retinal vein occlusion including 23 cases of female patients and 25 cases of male patients where the aged is from 46 to 72 years old and the average age is 47 years old.

2.2. Method

The control group was treated with the traditional symptomatic treatment of retinal vein occlusion by removing blood stasis drugs and promotes blood circulation. Vitamin adjuvant therapy treated by Xueshuantong combined with compound anisodine treatment, 15 mL thrombus

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Tong Injection (Guangdong Zhongsheng Pharmaceutical Co., Ltd., Z10960081) into 100 mL normal saline infusion and 2 mL of compound anisodine (Beijing Zizhu Pharmaceutical Co., Ltd., subcutaneous injection H20000495) were injected at para-temporal superficial artery at 1 times/day. All took about 3 weeks and 3 days for 1 courses of treatment.

The observation group was treated with vitrectomy, where the retinal vein or branch vein was cut to restore blood circulation and to stabilize the vision. The operation was carried out in the first part of the local point with 0.3% ofloxacin eye drop. After operation, conjunctiva sac was washed by 5% of the providone-iodin solution and the vitreous was removed, and the inner limiting membrane was stained and torn apart. In the course of the operation, if the retinal hole or the discovery hole was not found but there was no traction and detachment, whole of the eyes were washed by fluorine propane and sterile air mixed gas. However, in the process of surgery, if the retina is found to be seriously damaged with multiple holes, large holes or a large of large range detachment, then use the laser to cut the wound, and the silicone oil filled. Lastly, suture the wound and vitrectomy is complete. After the treatment, the patients were treated with anti-inflammatory drugs and were closely observed in 3 days. The main attention was that there was no infection and no retinal detachment occurred [2].

Two groups were treated at the same time, with the predictive nursing care, psychological guidance and other care management and hospital discharge guidance supplemented by proper counselling in order to ease the psychological burden of patients and their families.

2.3. Observation index

Obstruction site of the two groups of patients were observed with obstruction degree, complications and other indicators. The indexes of obstruction, obstruction degree and complications were based to HPLPII (health-promo-

tion lifestyle II), and the related criteria in the treatment compliance. The main include “Always”, “regular”, “sometimes”, “never” and so on four. The score is in accordance with the Linkret4 score method design score where score is reported as 1-4 points explained the ideal patient health-related behaviors. Treatment effect and adverse complications were observed in the two groups with postoperative 1 d, 3 d, 6 d, 12 d recovery time. The treatment effect with the smallest score is more significant

2.4. Efficacy evaluation criteria

Excellence: the symptoms disappear, blood accumulation have been absorbed, venous engorgement is significantly improved, the coagulation time was significantly shorter, vision and blood rheology indicators are significantly improved and the recovery of visual acuity degree is more than or equal to 3; Effective: blood was partly absorbed, coagulation time is improved, vision and blood rheology and other indicators has improved where the recovery of visual acuity degree is more than or equal to 1; Invalid: the symptom of patients and the index has not been improved or deteriorated further. Total effective rate = [(markedly effective number of cases + effective cases) / total number of cases] × 100%.

3. Results

The control group of 48 patients with retinal vein occlusion and observation group of 48 patients with retinal vein occlusion, in a period of time after the evaluation found that, whether it is effective or effective, the treatment effect of the observation group is far more than the efficacy in the control group. The results were statistically significant ($\chi^2 = 6.07, p < 0.05$), and the detailed data were shown in Table 1.

Referring to the “2014 edition of retinal vein obstruction clinical diagnosis and treatment” guidance and monitoring results, in April 2014, the two groups of patients recovery time, treatment effect, adverse complications, as shown in Table 2.

Table 1. Two groups of patients in the treatment results of the statistical table [n (%)].

Group	n	Excellence		Effective		Invalid		Total efficiency (%)
		n	%	n	%	n	%	
Observation group	48	40	83.33	7	14.58	1	2.08	97.91
Control group	48	8	16.66	33	68.75	7	14.58	85.41
χ^2	-	10.2857		0.3500		10.6061		10.6061
p	-	0.0013		0.5541		0.0011		0.0011

Table 2. The two groups of patients in recovery time, treatment effect and adverse complication.

Group	Cases	Way	Recovery Time	Treatment Effect	Adverse complication
Observational group	48	Operational	8.56 ± 2.36	3.25 ± 1.20	9.63 ± 3.52
Control group	48	Oral	9.02 ± 2.42	3.42 ± 1.03	9.63 ± 3.52
χ^2	-	-	10.5602	6.3523	5.0142
p	-	-	0.1350	0.2508	0.2301

Two groups of patients with retinal vein occlusion hierarchical quantitative integral comparison. After treatment, the observation group 1 d, 3 d, 6 d, 12 d recovery time, treatment effect, adverse complications such as hierarchical quantitative score was significantly lower than control group where the observation group 1 d, 3 d, 6 d, 12 d classification of quantitative integral (0.40 + 0.11) (0.72 + 0.17) (0.30 + 0.03) (0.20 + 0.05), the control group 1 d, 3 d, 6 d, 12 d classification of quantitative integral (3.86 + 1.02), (7.92 + 1.64), (6.28 + 1.10) and (4.76 + 1.05) respectively. There were statistically significant differences ($p < 0.05$).

4. Discussion

The incidence of Retinal vein occlusion is high where the disease progress is also fast. Therefore, the health care worker in the clinical treatment of retinal vein occlusion should have full understanding of the special rules of time to observe the treatment, accurate grasp of the disease development, and effectively for the foreseeable treatment. Until up to this end, before the treatment, most retinal vein obstruction patients and their families have certain psychological fear and pressure. Thus, in order to overcome this problem, the psychological care is necessary by handled it according to different people in different situations for psychological care. Informing the patients and their families about the possible adverse reactions of the treatment and appear coping methods and also answer the questions carefully. This is because, by proposed with professional guidance to the patients and their family, it will increase the sense of trust in doctors, patients able to eliminate fear and psychological stress. As a result, patients will able to cooperate with the treatment and thus, will achieved the purpose of the treatment [3,4].

In this paper, the results of the diagnosis and treatment

of retinal vein occlusion showed that the patients with retinal vein occlusion were improved in all aspects, and the degree of improvement was significant. However, it is still necessary to continue to strengthen the awareness of the health behavior of patients, by urging patients to gradually develop a healthy way of behavior, so that patients with retinal vein occlusion after hospital discharge gradually become a continuation of health related behavior. Integrated above, the observation group operation in the treatment of retinal vein occlusion clinical application effect is remarkable, greatly improving the success rate of the treatment of retinal vein obstruction, further promote the development of medicine, so it is worthy of further promotion and publicity in clinical.

Conflicts of interest

These authors have no conflicts of interest to declare.

Authors' contributions

These authors contributed equally to this work.

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