

Clinical Observation of Endoscopic Sinus Surgery for the Treatment of Sinusitis with Nasal Polyps

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Abstract: Objective: To explore the clinical efficacy of endoscopic sinus surgery in the treatment of Sinusitis with Nasal polyp. Methods: 70 patients with Sinusitis and Nasal polyp who were diagnosed and treated in Shaanxi Provincial People's Hospital from May 2021 to May 2022 were selected. According to the admission order of patients, 70 patients were divided into two experimental groups, the observation group and the control group, with 35 patients in each experimental group. Among them, the control group patients were treated with traditional surgical methods, while the observation group patients were treated with endoscopic sinus surgery. Result: The total effective rate of the observation group was about 94%, while the total effective rate of the control group was 76% ($P < 0.05$). Patients in the observation group were observed after surgery, and the amount of surgical bleeding and surgical time were significantly smaller than those in the control group. The difference between the two was statistically significant, and the nasal ventilation status of the observation group patients was better than that of the control group. Conclusion: Endoscopic sinus surgery is effective in the treatment of Nasal polyp in patients with Sinusitis. This treatment can effectively improve the olfactory function of patients and improve the nasal ventilation effect of patients.

Keywords: Endoscopic Sinus Surgery; Nasosinusitis; Nasal Polyp

1. Data and Methods

1.1 Experimental data

A total of 70 patients with sinusitis and nasal polyps diagnosed and treated in Shaanxi Provincial People's Hospital from May 2021 to May 2022 were selected. Based on the admission sequence, 70 patients were divided into an observation group and a control group, with 35 patients in each experimental group. In the control group, there were 20 female patients and 15 male patients, with a minimum age of 36 years and a maximum age of 61 years. The overall average age was 46 years. In the observation group, there were 25 female patients, 10 male patients, with a minimum age of 35 years, a maximum age of 60 years, and an overall average age of 45 years. There was no statistically significant difference in the general data of patients between the two groups ($P > 0.05$), which was highly comparable.

1.2 Experimental method

The patients in the two experimental groups need to complete various preoperative preparations and examinations after confirmation, and determine whether there are any abnormalities in their condition. We sincerely follow the doctor's instructions to implement treatment to prevent infection throughout the body.

Among them, patients in the control group should adopt traditional surgical treatment methods, such as resection of the anterior wall of the sphenoid ethmoid, and at the same time, tamponade and hemostasis should be performed in the anterior ethmoid sinus and other locations.

The patients in the observation group should undergo endoscopic sinus surgery, mainly in the form of supine position for treatment. General anesthesia should be used to cut off the nasal polyp tissue of the patient, fully expose some tissues such as the middle nasal meatus, middle turbinate, and turbinate. The middle end of the uncinate process should be cut off, and the ethmoidal canals should be opened. The ethmoidal sinus should be treated from front to back, and the diseased tissue at the ostium should be cleaned, so that the ostium of the nasal sinus can naturally expand.

For patients with anatomical variants in both groups, surgical correction should be performed simultaneously. After the surgery, vaseline gauze should be used to fill the nasal cavity of the patient for hemostasis. For patients with deviation of the nasal septum, nasal septum correction should be performed to avoid obstruction of nasal ventilation and affect the overall surgical effect. After surgery, patients in both groups need to use physiological saline for irrigation, and appropriate use of antibiotics and adrenocortical hormones before surgery to prevent infection, fully clean the secretion of the patient's nasal tract, and use vasodilators to prevent postoperative scab formation. At the same time, compound mint oil is used for nasal drip treatment to promote rapid peeling and scab formation. The patient was discharged seven days after surgery, and received outpatient follow-up 15 to 15 days and 30 days after surgery, followed by regular follow-up visits every two months.

1.3 Observation indicators and efficacy criteria

Observation indicators: 1) Olfactory function score, ranging from 0 to 5.5 points, with scores ranging from low to high indicating normal olfactory function, mild impairment, moderate impairment, severe impairment, and complete loss. 2) The nasal ventilation status was compared with the total nasal airway resistance of the two groups of patients. 3) Acoustic reflex nasal indicators, including nasal volume (NCV), minimum cross-sectional area of the nasal cavity (NMCA), and minimum cross-sectional area of the nasal cavity - anterior nostril distance (DCAM). Efficacy evaluation: After surgery, the patient's symptoms disappear, the sinus orifice is completely open, and there is no purulent secretion, which is a significant effect; The symptoms have improved, with partial opening of the ostium and a decrease in purulent secretions, indicating improvement; Failure to meet the above standards is considered invalid. Effective=significant effect+improvement.

1.4 Statistical processing

SPSS25.0 statistical software was used for analysis. The measurement data are expressed in $X \pm s$ and subjected to a t-test; The count data is expressed as a percentage (%), rows χ^2 Inspection. $P < 0.05$ indicates a statistically significant difference.

2. Results

The total effective rate in the observation group was about 94%, while the total effective rate in the control group was 76%. After surgery, patients in the observation group were observed, and the amount of surgical bleeding and surgical time were significantly smaller than those in the control group. The difference was statistically significant, and the nasal ventilation status of patients in the observation group was better than that in the control group.

3. Discussion

Chronic sinusitis and nasal polyps are a very common disease. The most common clinical symptoms are mainly runny nose and nasal congestion, and they can even cause symptoms such as memory loss and dizziness. If the symptoms are more severe, the normal life of the patient will be affected accordingly, which will threaten the patient's physical health. Some patients will be accompanied by diseases such as hypertension and organic diseases, which will make the treatment of their diseases more difficult. Therefore, it is necessary to choose efficient diagnosis and treatment methods. The effect of conventional surgical treatment will also be relatively poor, and the nasal cavity structure and sinuses of the patient will be more complex. Therefore, it is impossible to clearly judge the patient's condition. After receiving treatment, patients will also have recurrent episodes, delaying the time of treatment. Endoscopic sinus surgery will use nasal endoscopy to expand their vision, allowing patients to more effectively and clearly observe the internal structure of the patient's nasal tract, thereby accurately providing feedback on the actual condition of the patient's internal lesions, and providing effective basis for their

subsequent treatment work. This surgical treatment has a strong effect, which can protect the physiological integrity of the nasal sinuses and prevent them from damaging the nasal cavity. When endoscopic treatment is applied, the observation field of vision is relatively clear, so it can effectively clear the diseased tissue, retain the original function, remove the obstruction of the nasal sinuses, and promote the rapid recovery of physical function of the patient. During the actual treatment stage, it is necessary to analyze the actual condition of the patient, use rational and scientific medication, and alleviate the nasal mucosa edema and actual bleeding of the patient. The endoscopic treatment process is relatively clear, and the nasal ventilation status of patients in the observation group will be better after receiving diagnosis and treatment, which is significantly different from the control group and has statistical significance ($P < 0.05$). Therefore, it can be understood that when performing endoscopic sinus surgery on patients with sinusitis and nasal polyps, the prognosis of patients can be improved. It is necessary to compare the clinical effects of these two types of treatment methods for patients and observe the values of various indicators. The patients in the observation group were significantly lower than those in the control group in terms of bleeding time, amount of bleeding, and the difference was statistically significant. This is because patients receiving endoscopic treatment can avoid the problem of small blood vessel injury, improve the accuracy of treatment, reduce surgical trauma, and control bleeding. The overall surgical process is relatively simple, with a clear vision, which can ensure the smooth progress of the surgery. Therefore, the operation time is shorter, and the application of endoscopic sinus therapy can effectively preserve the olfactory function of patients, so the treatment will be more accurate and can prevent the olfactory nerves and tissues from being damaged.

Conclusion

To sum up, endoscopic sinus surgery for the treatment of sinusitis and nasal polyps has a relatively good clinical effect. With this treatment method, the patient's olfactory function can be quickly restored, while also improving and adjusting the total resistance of the nasal airway and acoustic reflex nasal indicators of the patient, reducing intraoperative bleeding and surgery time, allowing the patient's nasal cavity to maintain a good ventilation state. Therefore, its application in clinical practice is extremely valuable.

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