

Clinical Observation on the Standardized Treatment of Chronic Sinusitis with Functional Endoscopic Surgery in Nine Steps

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Abstract: Objective: To explore the clinical efficacy of nine step standardized functional endoscopic sinus surgery for chronic Sinusitis. Methods: 90 patients with chronic Sinusitis who were diagnosed and treated in the Department of Otolaryngology in Shaanxi Provincial People's Hospital from March 2018 to March 2019 were tested. These 90 patients were able to accept the nine step standardized treatment of functional endoscopic sinus surgery, observe the clinical efficacy, and record the patient's complications. Result: After 6 months after surgery, 45 patients were able to fully control their condition, 40 patients were partially controlled, and 5 patients were not under control. The total clinical effective rate was approximately 94.4%. At 6 months after surgery, the Lund Kennedy score and Lund Mackay score of the patient will be significantly lower than the pre treatment score. The probability of complications occurring in these 90 patients is 10%. Conclusion: The nine step standardized treatment of functional endoscopic sinus surgery for patients with chronic Sinusitis has a strong clinical effect and fewer complications, which is of great significance to promote.

Keywords: Functional Endoscopic Sinus Surgery; Nine Step Standardized Treatment; Chronic Sinusitis; Clinical Efficacy

Introduction

Chronic Sinusitis is a kind of nasal sinus mucosal disease with high incidence rate in clinical practice in China. The cause of this disease is related to abnormal immune function, especially type II immune response. After suffering from chronic Sinusitis, patients will have clinical symptoms such as nasal congestion and reduced sense of smell. The condition will recur, which is extremely easy to form various complications. The application of drug treatment can improve the ciliary function of patients, enable them to achieve ventilation, and effectively eliminate mucosal inflammation. However, relying solely on medication treatment may result in poorer outcomes. Endoscopic surgery can effectively improve patients' clinical symptoms, remove diseased tissue, improve nasal ventilation function, and restore normal sinus physiological function. Compared with radical surgery, functional endoscopic sinus surgery has made significant progress, but there are still unsolved problems. Therefore, this paper explores the clinical efficacy of nine step standardized functional endoscopic sinus surgery in the treatment of chronic Sinusitis to provide new ideas for the clinical treatment of chronic Sinusitis.

1. Materials and Methods

1.1 Experimental data

90 patients with chronic Sinusitis who were diagnosed and treated in Shaanxi Provincial People's Hospital from March 2018 to March 2019 were selected for the experiment. All patients involved in the experiment need to sign an informed consent form to meet the diagnosis and treatment standards of chronic Sinusitis. After 12 weeks of drug treatment, the overall drug treatment effect of the patient is not ideal. The exclusion criteria should be set to eliminate the symptoms such as surgical Contraindication and acute infection in recent months. Among all 90 patients, 40 were female patients, 50 were

male patients, 30 patients were without Nasal polyp, and 60 patients were with Nasal polyp. The shortest duration of the patients was 15 months, the longest duration was 27 months, the minimum age was 47 years old, the maximum age was 62 years old, and the overall average age was 53 years old.

1.2 Experimental Methods

Before the operation, the medical staff should help patients complete various auxiliary inspection tasks, and make a series of preparations. Select the zero degree endoscopic surgery system, use the form of general anesthesia, and combine the channel machine Plate theory functional endoscopic surgery nine step method to develop standardized surgery, and perform standardized operations.

First, apply Norepinephrine normal saline cotton piece for convergence treatment of nasal mucosa, and apply zero degree nasal endoscope to detect the condition of patients' nasal cavity, collect part of Nasal polyp tissue for pathological examination, and use electric cutter and other forms to remove polyps in nasal cavity and properly rest.

Second, the meniscus fissure should be inserted into the bulbar head, the middle part of the uncinate process body should be stripped, the upper and lower parts should be separated, the sulcus convex body should be cut off, the bone of the tail part of the uncinate process of the mucosa descending should be separated and cut off, so as to fully expose the mouth area of the patient's Maxillary sinus and the ethmoid funnel.

Thirdly, it is necessary to effectively remove the ethmoidal vesicle chamber, following the principle of resection from back to front and from inside to outside, fully exposing the superior and posterior fossa of the ethmoidal vesicle.

Fourthly, a window should be opened to treat the middle nasal methylplate, and a portion of the middle nasal methylplate should be removed to fully expose the upper turbinate and upper nasal meatus.

Fifthly, it is necessary to sequentially remove the ethmoidal and sphenoidal chambers, etc., in order to fully develop the upper nasal drainage channels for patients.

Sixth, it is necessary to effectively remove the position of the posterior end of the patient's turbinate, accurately identify the natural opening of the sphenoid sinus, expand the processing of the natural opening of the sphenoid sinus, and allow it to be fully opened.

Seventh, use a 70 degree nasal endoscope to fully expose the lateral and medial channels of the patient's recess, effectively remove the frontal recess chamber, and fully open the frontal sinus.

Eighthly, 70 degree nasal endoscope was used to effectively treat the lesions in Maxillary sinus and around the mouth of Maxillary sinus.

Ninth, remove residual bone fragments and properly trim the mucosa, confirm the attachment edge of the substrate, and perform surgical cavity packing. Antibiotics should be used for routine treatment after surgery, and nasal packing should be removed two days after surgery. After clearing the nasal congestion, patients are allowed to be discharged and treated with nasal spray hormones. On the 14th day after surgery, nasal endoscopy was used to effectively remove secretions. One month after surgery, local adhesions and granulation were cleaned up based on the patient's recovery status. Three and six months after surgery, sinus CT and endoscopic re examination were performed separately.

1.3 Statistical Analysis

Using SPSS 21.0 statistical software to process data, the counting data is expressed in% and subjected to a² test; The measurement data is represented by (mound soil S) and subjected to t-test, and P<0.05 indicates a statistically significant difference.

2. Results

All 90 patients successfully completed surgical treatment, and the postoperative follow-up time was more than six months. The follow-up results showed that within six months after surgery, 45 patients were able to fully control their condition, 40 patients were partially controlled, and 5 patients were not under control. The total clinical effective rate was about 94.4%. During postoperative patient follow-up, the Lund Kennedy score and Lund Mackay score were significantly

lower than the pre treatment score, and the difference between the two was statistically significant ($P<0.05$), as shown in Table 1.

Table 1 Analysis of the efficacy of patients

time	n	Lund-Mackayscore	Lund-Kennedy score	SymptomVAS score	SNOT-20 score
Preoperative	90	20.63±4.52	10.44±2.07	34.73±6.25	54.15±6.07
6 months after surgery	90	3.63±1.04	1.03±0.36	4.85±1.06	10.76±4.64
t		32.78	40.05	42.15	50.78
P		0.0001	0.0001	0.0001	0.0001

3. Discussion

Chronic Sinusitis is a nonspecific infection inflammation of the nasal cavity and nasal sinus mucosa, which lasts more than 12 weeks. It is a disease type with a high incidence rate in the clinical middle ear, nose and throat department in China. It can be divided into two categories, with Nasal polyp and without Nasal polyp, according to whether it has Nasal polyp. In clinical practice, some chronic Sinusitis patients without Nasal polyp can be completely treated after drug treatment, but most chronic Sinusitis patients, especially those with Nasal polyp, can only be cured by surgery. The internal structure of the patient's nasal cavity is relatively complex, and if conventional surgery is used for treatment, there will be certain defects. The patient has a large trauma, a large amount of bleeding, and the prognosis is not ideal. With the improvement of relevant minimally invasive technology and the improvement of treatment equipment in China, endoscopic sinus surgery has become more and more widely used in the treatment of chronic Sinusitis. Theoretically, the use of functional endoscopic sinus surgery can effectively relieve sinus obstruction, clear lesions, reduce inflammation burden, and ensure that drugs can directly act on the lesion. However, there are also patients whose surgery has not been fully opened, and the surgical effect is not ideal. Moreover, various serious complications may occur, such as skull base injury, orbital base injury, etc., causing significant distress to the patient and increasing their level of pain. In the physiological function of the nasal cavity, the role of the middle turbinate is very important. When conducting functional endoscopic surgery, it is necessary to preserve the reversible lesion tissue and healthy tissue of the middle turbinate as much as possible, and reconstruct ventilation and drainage; In the fourth step of standardized treatment using the nine step method in this study, the middle nasal methyl plate was fenestrated downwards and inwards, and a portion of the middle nasal methyl plate was removed to fully expose the upper turbinate and upper nasal meatus.

Conclusion

To sum up, when patients with chronic Sinusitis receive treatment, the nine step standardized treatment of functional endoscopic sinus surgery can achieve good clinical results. At the same time, the application of this treatment method will cause fewer complications, which is of great clinical value.

References

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