

# Clinical Nursing Effect of High-Quality Nursing on Sinusitis Patients

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**Objective:** To explore the clinical nursing effect of high-quality nursing on sinusitis patients. **Methods:** Altogether 127 patients with sinusitis treated in our hospital from June 2018 to July 2019 were collected. Among them, 69 patients were treated with high-quality nursing as the observation group (OG) and 58 patients were treated with routine nursing as the control group (CG). The quality of life (QOL), pain, nursing satisfaction, compliance, incidence of adverse reactions and length of stay before and after nursing were compared. **Results:** The QOL in OG was evidently higher than that in CG, the pain in OG was evidently lower than that in CG, the nursing satisfaction and compliance in OG were evidently higher than that in CG, and the incidence of adverse reactions and length of stay in OG were evidently lower than that in CG. **Conclusion:** High-quality nursing can reduce postoperative pain of patients with sinusitis surgery, and improve the QOL and nursing satisfaction of patients.

**Keywords:** high-quality nursing; sinusitis; nursing satisfaction; compliance.

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## INTRODUCTION

Sinusitis is a clinical otorhinolaryngological disease with high incidence and recurrence rate in the general population. It is divided into acute sinusitis and chronic sinusitis, of which chronic sinusitis is more common than acute sinusitis and is mainly caused by inflammation of sinus mucosa [1,2]. According to statistics, about 8% of adults in China are affected by chronic sinusitis, which means that nearly 107 million people in China suffer from chronic sinusitis [3,4]. Many patients with sinusitis have symptoms such as headache, nasal obstruction, snoring, loss of smell and runny nose. If the disease progresses, it will also affect the vision and hearing of the patient, thus greatly affecting the quality of life (QOL) of the patient [5]. Previous studies have shown that compared with other chronic diseases, the physical pain and social function index scores of patients with sinusitis are evidently lower than those of patients with congestive heart failure, angina pectoris, chronic obstructive pulmonary disease and back pain [6], which further reveals that we should attach importance to and improve the QOL of patients with sinusitis.

At present, surgery is the main treatment for sinusitis and appropriate nasal packing materials are selected [7,8]. Surgical treatment can effectively improve the symptoms of patients with sinusitis and remove polyps with pathological changes in nasal sinuses, but this invasive treatment will still cause certain trauma and complications such as nasal swelling, epistaxis and mucosal reaction [9,10]. In addition, these postoperative complications and pain will increase patients' panic, thus reducing their QOL, and are also not conducive to their postoperative recovery [11,12]. Therefore, it is necessary to carry out high-quality and scientific nursing for sinusitis patients after surgery.

Therefore, this study intended to carry out high-quality nursing for nasosinusitis patients and observe the effect of nursing to verify whether it can be popularized clinically.

## DATA AND METHODS

### Patient Data

Altogether 127 patients with sinusitis treated in our hospital from June 2018 to July 2019 were

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collected. Among them, 69 patients received high-quality care as the observation group (OG), including 39 males and 30 females, and 58 patients received routine care as the control group (CG), including 31 males and 27 females. This study has been approved by the Medical Ethics Committee, and all patients were informed and signed informed consent forms.

### Inclusion and Exclusion Criteria

**Inclusion criteria:** All patients were diagnosed with sinusitis, and the diagnostic guideline was as follows [13]: all patients underwent sinusitis surgery for the first time; the clinical data of the patients were complete, and patients cooperated with the treatment and follow-up.

**Exclusion criteria:** patients with cognitive impairment, cardiovascular diseases, disorders of the ear or nose or throat, severe fungal infection and neurological diseases.

### Nursing Mode

The CG was given routine nursing: the patients were given corresponding postoperative guidance and life guidance, the disease knowledge was popularized, and the patients were reexamined once every 3 months.

The OG was given high-quality nursing: 1. Postoperative treatment: The staff strengthened the management of patients' pain. If the patients suffered from severe pain, appropriate amount of painkillers were given to patients. The importance of postoperative treatment was explained to the patients, the patients were reminded to insist on using glucocorticoid and nasal sinus flushing and cleaning nasal vesicles, and the patients were followed-up online weekly. The patient's condition and compliance were learned to answer and encourage the patients' questions. 2. Psychological nursing: The psychological changes of the patients were observed, the patients were enlightened in time when they had anxiety, fear, tension and other adverse emotions. The successful rehabilitation cases were publicized to improve the confidence of the patients. The staff should communicate with the patients' families, and enlighten the patients together with their families. 3. Propaganda of disease knowledge: The causes, treatment methods, efficacy and prognosis of the disease were introduced to the patients, so that the patients

could understand the disease. The treatment information and guidance were provided. 4. Diet intervention: The nursing staff should ensure that the patients maintained a scientific, balanced and nutritious diet, mainly a light and digestible diet under the condition of satisfying energy demand.

### Outcome Measures

Main outcome measures: SF-36 score before and after nursing was observed to evaluate the QOL of the two groups of patients, visual analogue scale (VAS) before and after nursing was compared between the two groups to evaluate the pain of the patients, self-made nursing satisfaction questionnaire was applied to evaluate the nursing satisfaction (total satisfaction = very satisfied+satisfied), and the nursing satisfaction of the two groups was compared. Secondary outcome measures: clinical data of the two groups of patients, Frankl compliance scale after nursing of the two groups of patients were observed to evaluate their compliance, the incidence rate of adverse reactions after nursing of the two groups was compared, and the length of stay of the two groups was compared.

### Statistical Method

This study applied SPSS20.0 (SPSS Co., Ltd., Chicago, USA) to carry out statistical analysis on the collected data, GraphPad Prism 7 (Graphpad software Co., Ltd., San Diego, USA) to visualize pictures of the collected data. Counting data were expressed as usage (%) and applied chi-square test, which expressed as  $\chi^2$ . Measurement data were expressed by mean  $\pm$  standard deviation (Meas  $\pm$  SD). All measurement data were conformed to normal distribution. Independent sample t test was applied for comparison between the two groups, which was expressed as t.  $P < 0.05$  was regarded as statistically significant.

## RESULT

### Patient Baseline Data

By comparing the baseline data of the two groups, it was found that there was no statistical difference in gender, age, disease course, lesion location, smoking history, drinking history, family history of nasal polyps, sinusitis and upper respiratory tract infection history between the two groups, as shown in Table 1.

**Table 1 Baseline data table**

		Control group (n=58)	Observation group (n=69)	$\chi^2/t$	P
Gender	Male	31(53.45)	39(56.52)	0.120	0.729
	Female	27(46.55)	30(43.48)		
Age (years)		43.3 $\pm$ 9.6	45.2 $\pm$ 8.6	1.176	0.242
Course of disease (years)		2.8 $\pm$ 1.3	3.2 $\pm$ 1.6	1.527	0.129

Location of lesion	Unilateral	17(29.31)	26(37.68)	0.986	0.321
	Bilateral	41(70.69)	43(62.32)		
Smoking history		12(20.69)	20(28.99)	1.151	0.283
Drinking history		9(15.52)	11(15.94)	0.004	0.948
Complicated with nasal polyps		43(74.14)	49(71.01)	0.154	0.695
Family history of sinusitis		11(18.97)	16(23.19)	0.336	0.562
History of upper respiratory tract infection		14(24.14)	19(27.54)	0.189	0.664

### Nursing Satisfaction

By comparing the nursing satisfaction of the two groups of patients, we found that OG with

very satisfied and the total satisfaction rate was evidently higher than that of CG, as shown in Table 2.

**Table 2 Nursing satisfaction**

	Control group (n=58)	Observation group (n=69)	X <sup>2</sup>	P
Very satisfied	14(24.14)	35(50.72)	9.400	0.002
Satisfied	30(51.72)	28(40.58)	1.577	0.209
Dissatisfied	14(24.14)	6(8.70)	5.664	0.017
Total satisfaction rate	44(75.86)	63(91.30)		

### Adverse Reaction

By comparing the adverse reactions between the two groups, it was found that there was no significant difference in the incidence rates of nasal

obstruction, headache, nausea and epistaxis between the two groups, while the total incidence rate of adverse reactions in OG was evidently lower than that in CG, as shown in Table 3.

**Table 3 Incidence of adverse reactions**

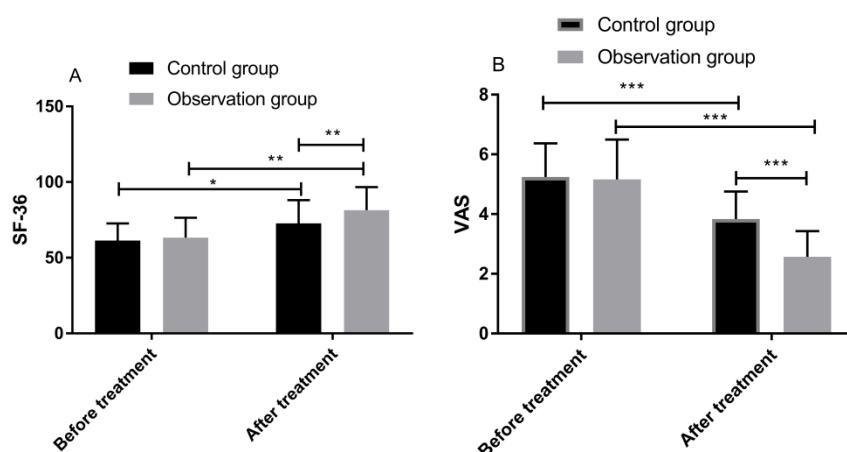
	Control group (n=58)	Observation group (n=69)	X <sup>2</sup>	P
Nasal congestion	4(6.90)	2(2.90)	1.119	0.290
Headache	2(3.45)	1(1.45)	0.546	0.460
Nausea	4(6.90)	1(1.45%)	2.472	0.116
Epistaxis	3(5.17)	2(2.90)	0.431	0.512
Total adverse reactions	13(22.41)	6(8.70)	4.661	0.031

### Qoland Vas Score

By comparing the SF-36 scores of the QOL of the two groups of patients, it was found that there was no significant difference in the QOL of the two groups before treatment, the QOL of the two groups after treatment was evidently higher than that before treatment, and the QOL of OG after

treatment was evidently higher than that of the CG. There was no difference in the VAS scores of the two groups before treatment, the VAS scores of the two groups after treatment were evidently reduced, and those in OG after treatment were evidently lower than that of CG, see Figure 1.

**Figure 1 QOL and VAS score**



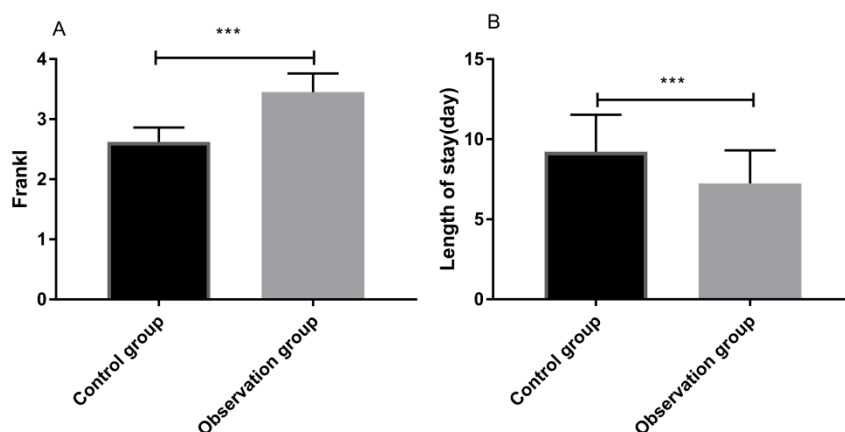
A. There was no significant difference between the two groups before treatment ( $P>0.05$ ). The QOL of the two groups after treatment was evidently higher than that before treatment ( $P<0.05$ ), and the QOL of OG after treatment was evidently higher than that of CG ( $P<0.05$ ). B. There was no difference in VAS scores between the two groups before treatment ( $P>0.05$ ). VAS scores of the two groups were evidently decreased after treatment ( $P<0.05$ ), and OG was evidently lower than CG after treatment ( $P<0.05$ ). \* means  $P<0.05$ , \*\* means  $P<0.01$ , \*\*\* means  $P<0.001$ .

### Comparison of Patient Compliance and Length of Stay

By comparing the compliance and length of stay of the two groups of patients, it was found that

the compliance of OG was evidently higher than that of CG, and the length of stay was evidently lower than that of CG, as shown in Figure 2.

**Figure 2 Comparison of patient compliance and length of stay**



A. Compliance of OG was evidently higher than that of CG. B. The length of stay of OG was evidently lower than that of CG. \*\*\* indicates  $P<0.001$ .

### DISCUSSION

Nasal polyp is a common complication of nasosinusitis patients [14]. A total of 94 cases of nasal polyp were included in our study, accounting for 74% of the sample. Glucocorticoid treatment after surgery can effectively improve it, and persistent use of glucocorticoid can improve the olfactory loss of patients [15,16].

Trauma, respiratory diseases, allergic constit

ution, structural abnormalities of paranasal sinuses and nasal cavity and the immune defects can all cause sinusitis in patients. As the nasal cavity structure is narrow and deep, the treatment of sinusitis is also difficult [17]. Nasal cavity cleaning is an effective treatment method for patients undergoing sinusitis surgery. Cilia can be washed to reduce mucosal edema and inflammatory media. However, if patients lack compliance and do not

carry out nasal cavity cleaning seriously, the improvement of disease condition and alleviation of symptoms will be greatly reduced, and even improper operation will aggravate infection [18,19]. In our nursing process, nasal cavity cleaning will also be taught to all patients, but we compared the compliance of the two groups of patients, and found that the compliance of patients in OG was evidently higher than that in CG, indicating that the use of glucocorticoid and nasal cavity cleaning in OG was evidently better than that in CG. Therefore, the recovery of OG was better. By comparing the length of stay of the two groups, we also found that the length of stay of OG was evidently lower than that of CG, indicating that the patients with high quality care recover faster. At the same time, we also compared the VAS scores of the two groups to evaluate the pain of the two groups in the nursing process. Many researches on sinusitis surgery have mentioned that patients undergoing surgery will suffer from severe pain, and the pain of patients will further lead to severe sleep problems of patients, thus reducing the QOL of patients and improving the probability of depression [20,21]. We can improve the pain of patients, reduce VAS score and improve the QOL by giving appropriate analgesic drugs to patients suffering from severe pain. We compared the QOL of the two groups through SF-36 scores. The QOL of OG was evidently higher than that of CG. The incidence of adverse reactions in OG was evidently lower than that in CG, and the satisfaction degree of nursing was evidently higher than that in CG. This also showed that high-quality nursing methods are especially important for postoperative recovery of patients. Measures can be taken for patients in physiology, psychology, daily diet, postoperative recovery exercise and other aspects, so as to strengthen their compliance and body recovery function of postoperative patients, effectively relieve postoperative psychological pressure of patients, effectively improve the QOL of patients, and improve the nursing satisfaction of patients and their families.

However, there are still some deficiencies in this study. First of all, the samples we included are all sick people and there was no normal people. Secondly, we collected patients undergoing sinusitis surgery, but there are other treatment schemes for sinusitis, such as antibiotic drug therapy [22,23], so it is not clear whether these treatment methods will make any difference to our research. We will add corresponding samples for observation in the following experiments. The incidence rate of sinusitis in children is also relatively high [24,25], but our study did not include children, so it is not clear whether the nursing methods can also have better nursing results in pediatric sinusitis, so we also hope to increase corresponding research later[26].

To sum up, high-quality nursing can reduce postoperative pain of patients with sinusitis surgery, and increase the quality of life and nursing satisfaction of patients.

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