Study and evaluation of sinus infections with nasal polyps

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ABSTRACT

50 patients were collected from Azady Teaching Hospital, Kirkuk, Iraq. This paper focuses on the Study and evaluation of sinus infections with nasal polyps, in addition to its relationship to the cognitive functions of patients.
In this study, the severity of symptoms before and after surgery, which included nasal congestion and runny nose, as well as headache and snoring, and the results of preoperative and postoperative cognitive tests were evaluated for the group of patients.
The statistical analysis programs SPSS soft 20 in addition to MS EXCEL were used and relied on them in analyzing data and patient outcomes. The study found a significant improvement after surgery. The study also showed through the results that cognitive functions recorded poor results when compared to the results of postoperative patients.

Keywords: CRSwNP, coagulation, Runny nose, Preoperative.

Introduction

Chronic rhinosinusitis with nasal polyposis (CRSwNP) is a chronic inflammatory disease of the respiratory mucosa of the nasal cavity and paranasal sinuses (Andrews et al 25)
Polyps occur with polypous sinusitis (PRS), which is a chronic disease of the nasal mucosa There are two clinical forms of this serious disease, the first type is local With this form of polyps, the process is limited to the nasal mucosa and the systemic type In these cases, it can be combined Oral rehydration salts with other diseases - bronchial asthma, cystic fibrosis, Kartagener's syndrome
Nasal polyps are caused by long-term inflammation of the nose or sinuses due to prolonged infection, exposure to allergens and certain immune disorders Nasal and sinus (sinus) polyps can occur in both adults and children, but are more common in adults
Drug treatment contributes to regressing the size of the polyps or slowing their growth, but sometimes surgery is performed to stop the symptoms of the disease Despite successful treatment, polyps tend to grow again
Unfortunately, in most cases, surgery is the only solution if the nasal polyps are large or rapidly growing in size, as well as in cases where steroids or topical tablets do not work
Polypectomy involves the surgical removal of polyps under local or general anaesthesia The type of anesthesia may depend on the number and size of polyps, as well as their location The frequency of traditional surgical methods has decreased due to frequent relapses and the

development of laparoscopic surgery, now the old methods are used only in cases where there are contraindications to general anesthesia
Endoscopic surgery is performed in the nasal and sinus area under general anaesthesia an endoscope allows the surgeon to see the inside of the nose and use a video camera to perform high-resolution surgery in a confined space where it is difficult to perform with conventional surgical instruments

Material and method

This study was conducted in Azady Teaching Hospital, Kirkuk, Iraq. where 50 patients were collected and demographic data and information related to (age, gender, severity of preoperative and postoperative symptoms) were collected

Study design

Demographic information and data were collected for patients with CRSwNP Patients under the age of 20 years were excluded, in addition to patients with anatomic abnormalities in the nose, patients were evaluated on the presence of computed tomography debridement

In this study, the severity of preoperative and postoperative symptoms was evaluated, which included nasal congestion and runny nose, in addition to headache and snoring, and the results of preoperative and postoperative cognitive testing of the group of patients were evaluated
The statistical analysis programs spss soft 20, in addition to MS EXCEL, were used and relied on in analyzing data and patient outcomes
The ages of the patients ranged between 26 and 60 years, and the patients were divided into 70% men and 30% % women.
The patient should undergo a thorough examination and preparation prior to surgery A general and biochemical blood test, a coagulogram (coagulation) are performed if it is necessary.

Study period

After obtaining approvals for data collection related to patients, the study period was extended for two years from 30-9-2018 to 1-10-2020

Aim of research

this paper focus to Study and evaluation of sinus infections with nasal polyps

Results

Table 1- Distribution of patients according to gender

age * gender Crosstabulation				
Count				
		VAR2		Total
		f	m	
age	26	1	0	1
	28	0	2	2
	29	1	2	3
	30	0	2	2
	31	0	2	2
	32	0	2	2
	33	0	2	2
	35	0	2	2
	38	0	2	2
	39	0	2	2

	44	1	2	3
	45	0	2	2
	46	1	2	3
	48	0	2	2
	49	1	0	1
	50	2	3	5
	51	0	2	2
	52	1	1	2
	53	1	1	2
	54	1	1	2
	55	1	2	3
	59	1	0	1
	60	1	0	1
	61	1	0	1
Total		14	36	50

Table2- compression of patients in runny nose and Nasal congestion (Preoperative, Postoperative)

Statistics						
		age	Runny nose before	Runny nose after	Nasal congestion before	Nasal congestion after
N	Valid	50	50	50	50	50
	Missing	2	2	2	2	2
Mean		43.3000	6.4600	2.1400	8.2200	1.7800
Std. Deviation		10.10405	.90824	.70015	.76372	.58169
Variance		102.092	.825	.490	.583	.338
Range		35.00	5.00	2.00	2.00	2.00
Minimum		26.00	3.00	1.00	7.00	1.00
Maximum		61.00	8.00	3.00	9.00	3.00

Table3- compression of patients in ability to smell properly and Headache (Preoperative, Postoperative)

Statistics

		In ability to smell properly before	In ability to smell properly after	Headache before	Headache after
N	Valid	50	50	50	50
	Missing	2	2	2	2

Mean	8.0200	3.6400	6.9400	1.5600
Std. Deviation	.89191	1.04511	.79308	.50143
Variance	.796	1.092	.629	.251
Range	4.00	3.00	3.00	1.00
Minimum	6.00	2.00	6.00	1.00
Maximum	10.00	5.00	9.00	2.00

Table 4- compression of patients in snoring loudly according to (Preoperative, Postoperative)

Statistics			
		Snoring loudly before	Snoring loudly after
N	Valid	50	50
	Missing	2	2
Mean		7.1200	1.7600
Std. Deviation		0.98229	0.68690
Variance		.965	.472
Range		3.00	2.00
Minimum		5.00	1.00
Maximum		8.00	3.00

Figure 1- test of annova for results (Preoperative, Postoperative) p-value

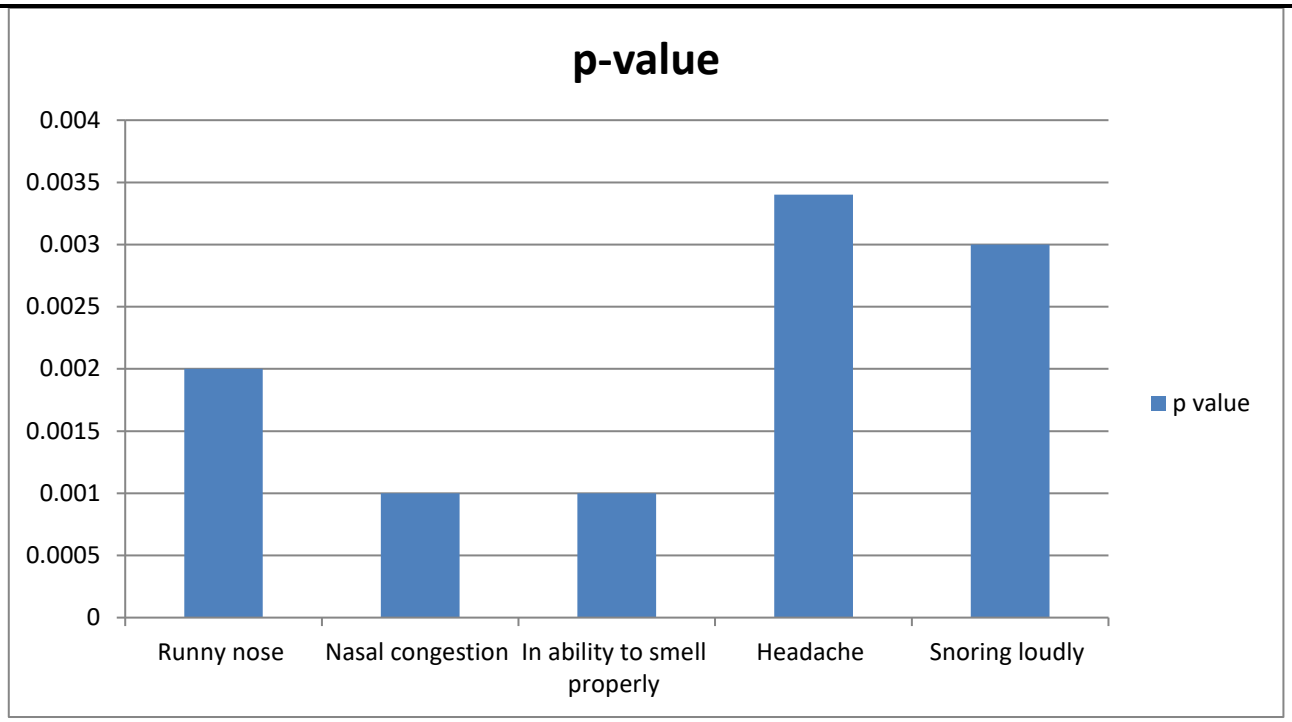


Figure 2- result of patient according to P300

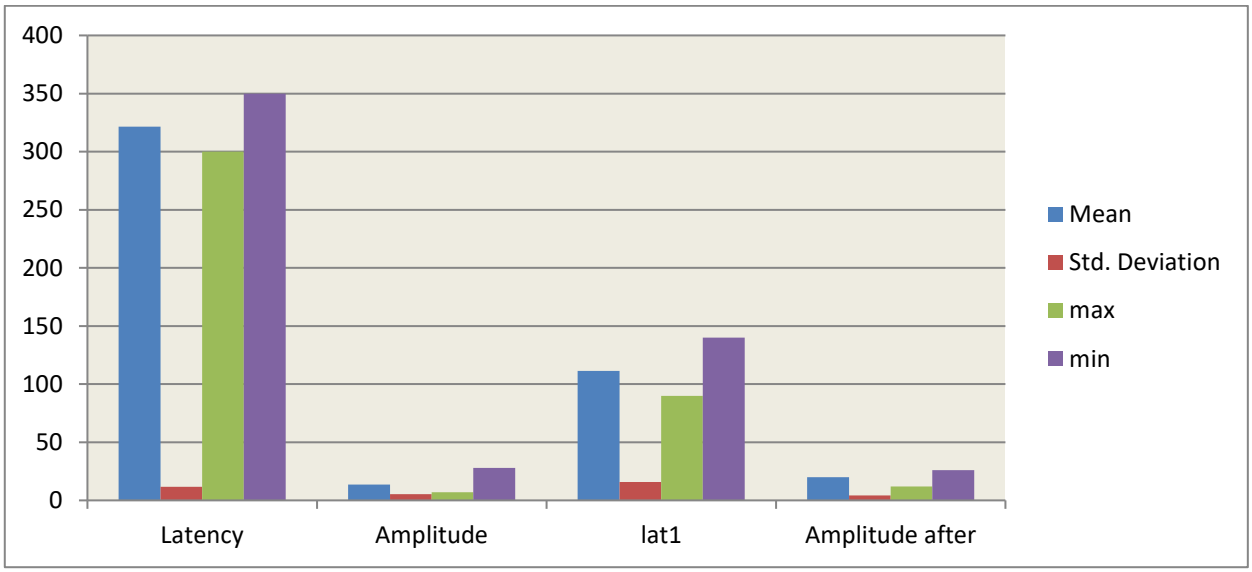


Table 5- Results of patient according to Stroop TBAG

Stroop TBAG					
		f	%	VP	CP
Valid		6	10.7	10.7	10.7

	betterment	35	62.5	62.5	73.2
	failure	14	25.0	25.0	98.2
	Stable	1	1.8	1.8	100.0
	Total	56	100.0	100.0	

Figure 3- Results of patient according to VADS-B

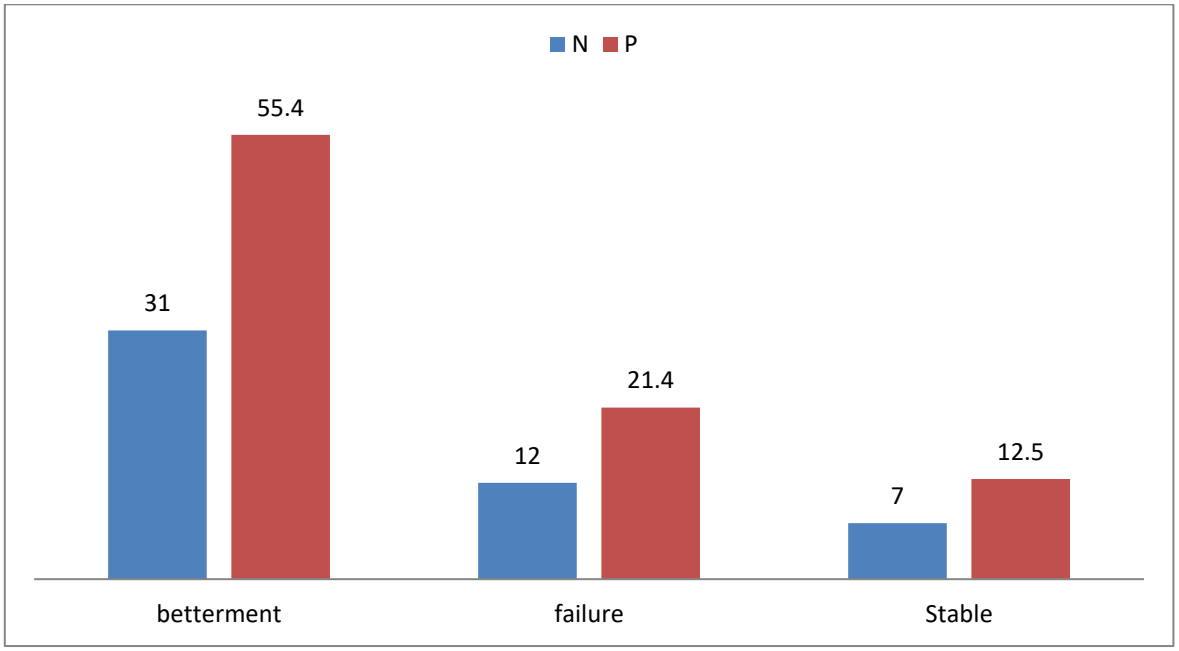
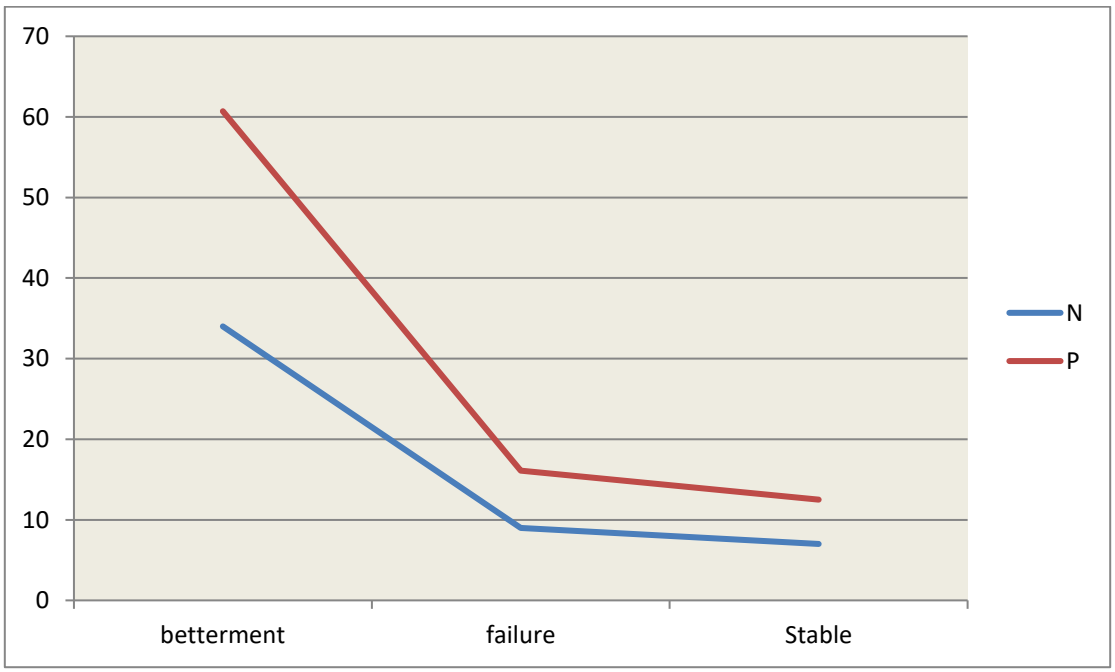


Figure 4- Results of patient according to serial digit learning.



Discussion

50 patients were collected from Azady Teaching Hospital, Kirkuk, Iraq. and the patients were divided into 36 patients, men, and 14 women, as shown in Table 1 and

through the use of the SPSS program, the value mean, sd was found.

Patients' ages: 43.30 ± 10.10

In this study, demographic data were evaluated in relation to patients' outcomes, which included (Runny nose, Nasal congestion, Inability to smell properly, Headache, and Snoring loudl).

The mean value and SD for Runny nose Preoperative (7.1200±0 .98229

As for Postoperative, it became (1.7600 ± 0.6).

As for the nasal congestion, the mean value + so before surgery was 8.2 ± 0.7, but after surgery, it became 1.7 ± 0.48, and a statistically significant relationship was found ≤0.001

A statistically significant relationship was found before and after surgery when extracting a value of b between the two groups of 0.001 for headache in addition to the inability to smell at 0.0034

In order to assess cognitive functions and attention and their relationship to nasal polyposis, the p 300 is used to measure cognitive functions related to patients (Preoperative, Postoperative). This test was used in patients with allergic rhinitis.

Minor changes were found between the two groups (Preoperative, Postoperative) and there were statistical differences between the two groups is ≤0.05.

Conclusion

The presence of nasal polyps leads to nasal obstruction and odor disturbance, which are the most prevalent symptoms. This study showed a significant and noticeable postoperative improvement. The study also demonstrated through the results that the cognitive functions recorded poor results when compared to the results of Postoperative patients, and that nasal polyps had a significant and clear effect.

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