



NASAL ENDOSCOPIC FINDINGS IN CHRONIC NASAL OBSTRUCTION

Mohammed Sahib Salman

M.B.Ch.B. - FICMS (ENT) – **Otolaryngology**

Iraqi Ministry of Health, Baghdad Al-Rusafa Health Directorate, Al-Nooman Teaching Hospital, Baghdad, Iraq.

dr_mo80sss@yahoo.com

Harith AbdulJabbar Ayooob

M.B.Ch.B. - FICMS (ENT) – **Otolaryngology**

Iraqi Ministry of Health, Baghdad Al-Rusafa Health Directorate, Al-Nooman Teaching Hospital, Baghdad, Iraq.

harithayooob@yahoo.com

Raed Sami Tuama Aljuboori

M.B.Ch.B. - FICMS (ENT) – **Otolaryngology**

Iraqi Ministry of Health, Baghdad Al-Karkh Health Directorate, Al-Mahmmodia General Hospital, Baghdad, Iraq.

Raedaljuboori@gmail.com

Article history:

Received: January 6th 2022
Accepted: February 6th 2022
Published: March 17th 2022

Abstract:

This study aims to evaluate the results obtained from Nasal endoscopic findings in chronic nasal obstruction and comparison with another method where 100 patients were collected and distributed based on the CT scan and nasal endoscopic finding as the statistical analysis program was relied upon spss soft 22 and program soft EXCEL Ages are categorized into four categories:)30-34(,)35-39(,)40-44(,)45-50 and we concludde in last of study in otolaryngology, NE is the gold standard for diagnosing diseases of the nose, paranasal sinuses and nasopharynx where many minimally invasive interventions are also performed, the effectiveness of which sometimes exceeds that of traditional ENT operations. Therefore, in many modern clinics

Keywords: NE, CT, obstruction, ENT

INTRODUCTION

Chronic nasal obstruction (runny nose) is an inflammatory disease that affects the nasal mucosa and can be described as a group of symptoms that last for months or even years [1,2,3]. These symptoms usually include a runny nose, itchy nose, sneezing, nasal congestion, or nasal discharge [4,5].

In essence, chronic nasal obstruction is just the tip of the iceberg - the causes of the disease can be serious pathological processes, often requiring long and complex treatment [6,7,8].

Recurrent rhinitis or incomplete treatment can easily turn into chronic nasal obstruction. Chronic inflammation of the adjacent parts such as sinusitis, tonsillitis, and nasal septal deviation can cause chronic nasal obstruction due to prolonged stimulation. Long-term use of nasal drops may also lead to chronic nasal obstruction [9,10,11].

Other chronic diseases such as heart and hypertension require long-term use of antihypertensive drugs, which may cause cause chronic nasal obstruction, as shown in figure 1

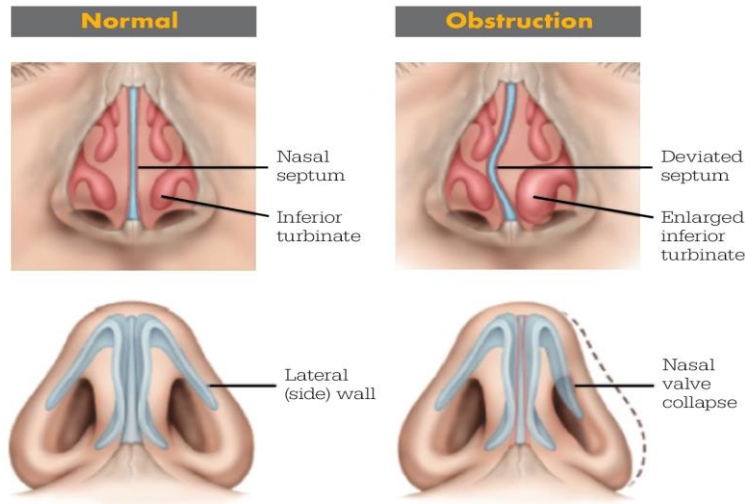


Figure 1- nasal airway obstruction

Material and method

Patient sample

A cross-sectional study was conducted in the Department of Otorhinolaryngology and Head Neck Surgery of different hospitals in Baghdad, Iraq, where 100 patients were collected and distributed based on the CT scan and nasal endoscopic finding.

Study design

A cross-sectional study was conducted for 100 patients and was distributed on the basis of gender and age, where the basic information and data of the patients were collected and then transferred to the statistical expert for the purpose of analysis and knowledge of the statistical relationships generated between the two

groups. Patients were distributed based on the symptoms generated in addition to that Classification of cases on the basis of nasal pathologies

Study period

After obtaining approvals for the collection of information and demographic data for this study, the study period was limited to a full year from 5-8-2020 to 11-3-2021.

AIM OF RESEARCH

This study aims to evaluate the results obtained from Nasal endoscopic findings in chronic nasal obstruction and comparison with another method

Results

Table 1- distribution of patient

	N	p	Chi-square
	20	20%	4.53
35-39	25	25%	
40-44	30	30%	
45-50	25	25%	



Table 2- distribution of patients according to age

Age	gender	N
30-34	f	10
	m	15
35-39	f	5
	m	20
40-44	f	3
	m	12
45-50	f	5
	m	30

Table 3- distribution of patient according to symptoms

P	AGE	N
Nasal obstruction	30-34	20
	35-39	18
	40-44	10
	45-50	25
Headache	30-34	4
	35-39	4
	40-44	3
	45-50	6
Sneezing	30-34	15
	35-39	12
	40-44	10
	45-50	13
Postnasal drip	30-34	13
	35-39	12
	40-44	7



	45-50	12
Disorders of olfaction	30-34	4
	35-39	5
	40-44	3
	45-50	5
Nasal discharge	30-34	22
	35-39	23
	40-44	12
	45-50	33

Figure 1- distribution of patient according to nasal pathologies

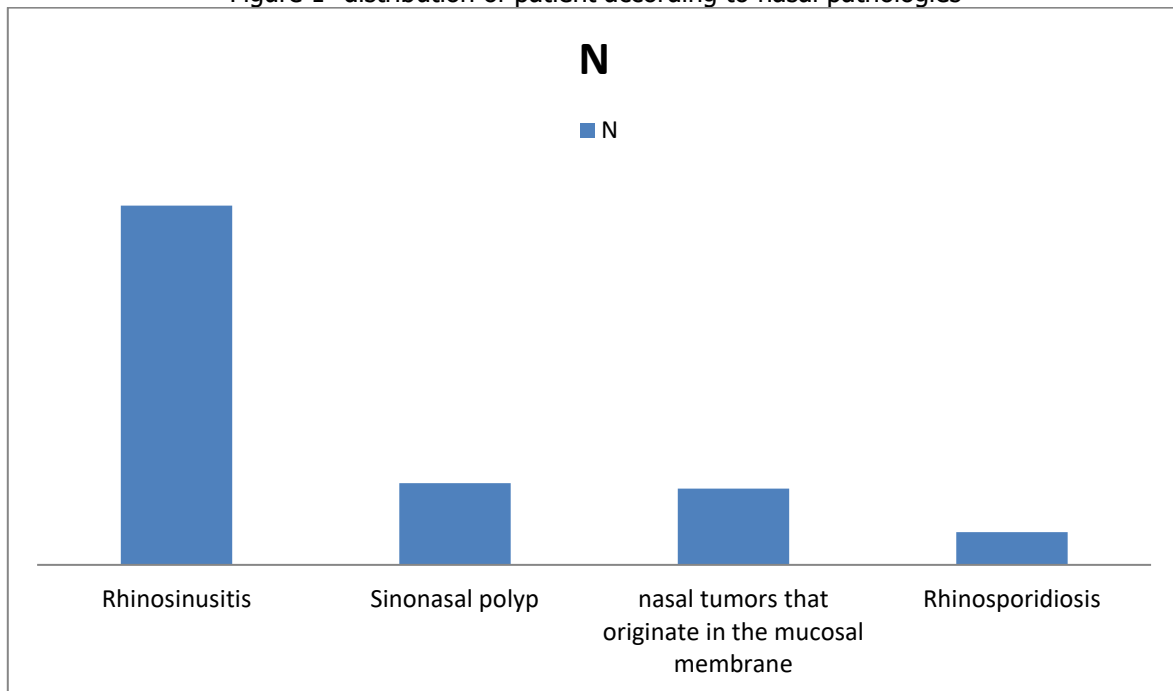


Figure 2- Distribution of patients by CT and NE(N)

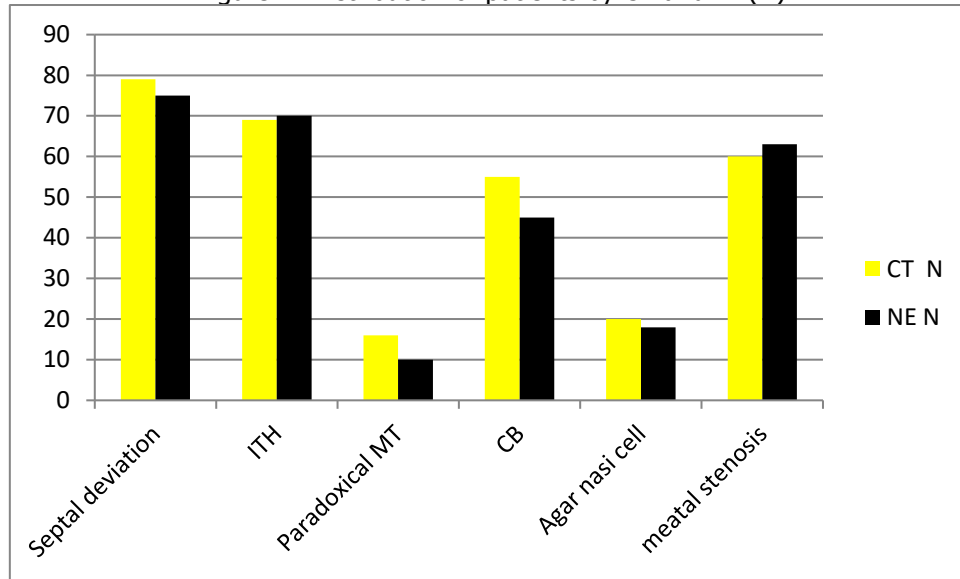


Table 4 - p-value and test between methods

p	P-VALUE	T-test
Septal deviation	0.01	0.0
ITH	0.03	0.1
Paradoxical MT	0.01	0.1
CB	0.05	0.4
Agar nasi cell	0.01	0.2
meatal stenosis	0.022	0.2



Table5- correlation between methods

Correlations		NE	CT
Symptom score	Pearson correlation	0.644**	-0.0023
	Sig. (two-tailed)	0.001	0.001
	N	100	100

DISCUSSION

One hundred collected Patients, and the necessary and required analyzes were conducted on them. The appropriate statistical analysis was done, which is in line with this study.

As the statistical analysis program was relied upon spss soft 22 and program soft EXCEL Ages are categorized into four categories: (30-34),(35-39),(40-44),(45-50) The value of Chi-square was 4.53 among the four age groups of patients. In Table 2, which shows the distribution of patients according to gender, we note that the percentage of males in this study is 77%, while the percentage of females is 23% In. Table 3, which clarifies the distribution of patients depending on the symptoms, we note in the first place Nasal discharge for 90 patients and in the second place Nasal obstruction for 73 patients

Chronic rhinitis is accompanied by prolonged difficulty in nasal breathing. There is also a deterioration in the sense of smell, nasal secretions, the formation of mucus that flows down the throat, and coughing [12,13,14].

Vasomotor rhinitis is accompanied by episodes of sneezing with abundant liquid secretions and difficulty in breathing through the nose.

With allergic rhinitis, itching and burning in the nose and eyes, severe runny nose, swelling, and sneezing appear [15].

In severe cases, the nasal mucosa is covered with crusts; there is an unpleasant smell when breathing. Atrophic rhinitis is accompanied by dryness in the nasal cavity and pharynx, nosebleeds.

In otolaryngology, NE is the gold standard for diagnosing diseases of the nose, paranasal sinuses, and nasopharynx, where many minimally invasive interventions are also performed, the effectiveness of which sometimes exceeds that of traditional ENT operations. Therefore, in many modern clinics

CONCLUSIONS

Nasal endoscopy is a required diagnostic method and has no alternatives. There is no other research method that allows to obtain such reliable and updated information about the state of the ENT organs. Therefore, nasal endoscopy is used for ENT diseases and subsequent monitoring of the effectiveness of treatment.

A statistically significant relationship was found between the two methods used in this study, which indicates that P-value >0.01

RECOMMENDATION

1. Reducing the rate of dust mites (they are minute living creatures that feed on dead skin cells that the body gets rid of during sleep.
2. Staying away from allergens, and this means controlling the external environment in which the patient lives

REFERENCES

1. Dietz de Loos D, Lourijzen ES, Wildeman MA, Freling NJ, Wolvers MD, Reitsma S, Fokkens WJ: Prevalence of chronic rhinosinusitis in the general population based on sinus radiology and symptomatology. *J Allergy Clin Immunol.* 2019, 143:1207-14. 10.1016/j.jaci.2018.12.986
2. Benninger MS, Ferguson BJ, Hadley JA, et al.: Adult chronic rhinosinusitis: definitions, diagnosis, epidemiology, and pathophysiology. *Otolaryngol Head Neck Surg.* 2003, 129:1-32. 10.1016/S0194-5998(03)01397-4
3. Pokharel M, Karki S, Shrestha BL, Shrestha I, Amatya RC: Correlations between symptoms, nasal endoscopy computed tomography and surgical findings in patients with chronic rhinosinusitis. *Kathmandu Univ Med J (KUMJ).* 2013, 11:201-5. 10.3126/kumj.v11i1.12504



4. Klimek L, Bergmann KC, Biedermann T, et al.: Erratum to visual analogue scales (VAS): measuring instruments for the documentation of symptoms and therapy monitoring in cases of allergic rhinitis in everyday health care. *Allergo J Int.* 2017, 26:25-6. 10.1007/s40629-017-0010-6
5. Thomas M, Yawn BP, Price D, Lund V, Mullol J, Fokkens W: EPOS primary care guidelines: European position paper on the primary care diagnosis and management of rhinosinusitis and nasal polyps 2007: a summary. *Prim Care Respir J.* 2008, 17:79-89. 10.3132/pcrj.2008.00029
6. Lohiya SS, Patel SV, Pawde AM, Bokare BD, Sakhare PT: Comparative study of diagnostic nasal endoscopy and CT paranasal sinuses in diagnosing chronic rhinosinusitis. *Indian J Otolaryngol Head Neck Surg.* 2016, 68:224-9. 10.1007/s12070-015-0907-7
7. Metson R, Gliklich RE, Stankiewicz JA, et al.: Comparison of sinus computed tomography staging systems. *Otolaryngol Head Neck Surg.* 1997, 117:372-9. 10.1016/S0194-5998(97)70129-3
8. Clifton NJ, Jones NS: Prevalence of facial pain in 108 consecutive patients with paranasal mucopurulent discharge at endoscopy. *J Laryngol Otol.* 2007, 121:345-8. 10.1017/S0022215106002647
9. Park DY, Lee EJ, Kim JH, Kim YS, Jung CM, Kim KS: Correlation between symptoms and objective findings may improve the symptom-based diagnosis of chronic rhinosinusitis for primary care and epidemiological studies. *BMJ Open.* 2015, 5:e009541. 10.1136/bmjopen-2015-009541
10. Schiller JS, Lucas JW, Ward BW, Peregoy JA: Summary health statistics for U.S. adults: National Health Interview Survey, 2010. *Vital Health Stat* 10. 2012, 1:207.
11. Chen Y, Dales R, Lin M: The epidemiology of chronic rhinosinusitis in Canadians. *Laryngoscope.* 2003, 113:1199-205. 10.1097/00005537-200307000-00016
12. Nayak DR, Balakrishnan R, Murty KD: Functional anatomy of the uncinat process and its role in endoscopic sinus surgery. *Indian J Otolaryngol Head Neck Surg.* 2001, 53:27-31. 10.1007/BF02910975
13. Deosthale NV, Khadakkar SP, Harkare VV, Dhoke PR, Dhote KS, Soni AJ, Katke AB: Diagnostic accuracy of nasal endoscopy as compared to computed tomography in chronic rhinosinusitis. *Indian J Otolaryngol Head Neck Surg.* 2017, 69:494-9. 10.1007/s12070-017-1232-0
14. Bhattacharyya N: Radiographic stage fails to predict symptom outcomes after endoscopic sinus surgery for chronic rhinosinusitis. *Laryngoscope.* 2006, 116:18-22. 10.1097/01.mlg.0000192284.22703.04
15. Singh GB, Arora N, Tomar S, Kwatra D, Kumar S: The role of sinus CT in surgical treatment decisions for chronic rhinosinusitis. *Am J Otolaryngol.* 2020, 41:102729. 10.1016/j.amjoto.2020.102729
16. Bhattacharyya N, Jones DT, Hill M, Shapiro NL: The diagnostic accuracy of computed tomography in pediatric chronic rhinosinusitis. *Arch Otolaryngol Head Neck Surg.* 2004, 130:1029-32. 10.1001/archotol.130.9.1029