



Snot - 22 Questionnaire Assessing Quality of Life in Patients with Chronic Rhinosinusitis

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ABSTRACT: SNOT-22 questionnaire is used to assess quality of life in patients with chronic rhinosinusitis

OBJECTIVES: SNOT- 22 questionnaire is used to assess the impact of chronic rhinosinusitis on quality of life.

METHODS: This cross sectional and prospective study is carried out in Saveetha medical college and hospital, chennai from February 2022 to April 2022 involving 60 patients with chronic rhinosinusitis. Patients are asked to fill the SNOT - 22 questionnaire.

RESULTS: Chronic rhinosinusitis reduces quality of life in patients with chronic rhinosinusitis.

I. INTRODUCTION:

Chronic rhinosinusitis (CRS) is chronic inflammation of sinuses and nasal cavity mucosa occurring for more than 12 weeks at a time. The most common symptoms of the disease include nasal congestion or obstruction, hyposmia or anosmia, facial pain, nasal discharge. The main causes of sinusitis include bacteria and viruses.. Streptococcus, pneumococcus, Haemophilus, and Moraxella are the most common bacterial causes. Infectious, inflammatory, or structural causes may all play a role in chronic sinusitis. Other etiologies should thus be taken into account, including allergic rhinitis (dust mites, moulds), exposures (airborne irritants, tobacco smoke, or other toxins), structural reasons (nasal polyps, deviated nasal septum), ciliary dysfunction, immunodeficiencies, and fungal infections. Otitis media, asthma, AIDS, and cystic fibrosis, are other medical conditions that can be associated with chronic rhinosinusitis^{2,3,4}.

Chronic rhinosinusitis (CRS) affects 1 in 8 people in India; about 5-15% of the urban population. The prevalence of sinusitis (146/1000 population) has been reported to exceed that of any other chronic condition and is apparently on the increase. According to estimates, 134 million Indians have chronic sinusitis, which can cause

incapacitating headaches, fever, nasal congestion, and obstruction⁵.

The CRS is diagnosed clinically by the criteria developed by the American Academy of Otorhinolaryngology, defined by the presence of two or more significant symptoms, such as: nasal obstruction/congestion/block, anterior or posterior rhinorrhea, hyposmia/anosmia, and facial pain/pressure, lasting for more than 12 weeks, besides nasal endoscopy and/or CT scan⁶.

The 22-Item SinoNasal Outcome (SNOT - 22) questionnaire was used in this study. The SNOT-22 questionnaire analyses the impact of chronic rhinosinusitis on quality of life.

In comparison between patients with CRS and patients without CRS, it reported that the patients with CRS spent more days in bed, look for medical care often as well as alternative health-care professionals and mental health experts. Regarding the clinical effectiveness and standard of care for these patients, quality of life is a crucial factor in determining the severity of rhinosinusitis. Numerous instruments have been developed in recent years to measure the quality of life in patients with chronic rhinosinusitis¹.

The purpose of this study was to evaluate the quality of life of people with chronic rhinosinusitis using the SNOT-22 questionnaire.

II. METHODOLOGY:

This cross sectional, prospective and analytical study was carried out in the department of Otorhinolaryngology in Saveetha Medical College and Hospital, Chennai between February 2022 to April 2022. It includes 60 patients with chronic rhinosinusitis. The diagnosis of chronic rhinosinusitis was done using the American Academy of Otorhinolaryngology, according to which it is defined by the presence of two or more symptoms, such as nasal obstruction/congestion/block; anterior or posterior rhinorrhea; hyposmia/anosmia; and facial pain/pressure, lasting for more than 12 weeks¹.



The patients were informed about the goals of this study. Their choice to participate was highlighted, and data confidentiality was guaranteed. To confirm that the subjects were willing to take part in the study, the subjects were asked to sign a consent form that was included with the questionnaire. A brief history about the patient's age, gender and occupation were noted. The 22 - Item SinoNasal Outcome (SNOT -22) questionnaire was used to assess symptoms of chronic rhinosinusitis. It comprises evaluations of nasal, paranasal, psychological, and sleep-related problems. The numerical value of SNOT - 22 represents the effect of the illness on a person's quality of life. It is thought to be the best questionnaire for evaluating patients with chronic rhino-sinusitis' quality of life.

The patients were asked to grade their symptoms as 0- no problem, 1- very mild, 2- mild or slight, 3- moderate, 4- severe, 5- worst. The total sum of the score indicates the impact of the disease on the quality of life of patients with chronic rhinosinusitis. The increased score tells about the quality of life being worse in patients with chronic rhinosinusitis.

III. RESULTS:

In this we included 64 patients diagnosed with chronic rhinosinusitis by the criteria of American Academy of Otorhinolaryngology. The patients were classified based on sex and age. Mean and standard deviation of the symptoms of patients were done.

FIG 1: Sex ratio showing patients with chronic rhinosinusitis

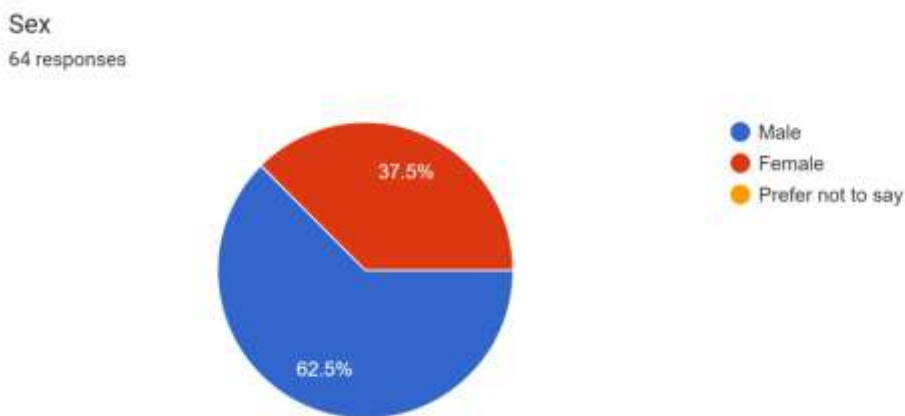


FIG 2: Prevalence of chronic sinusitis in different age groups

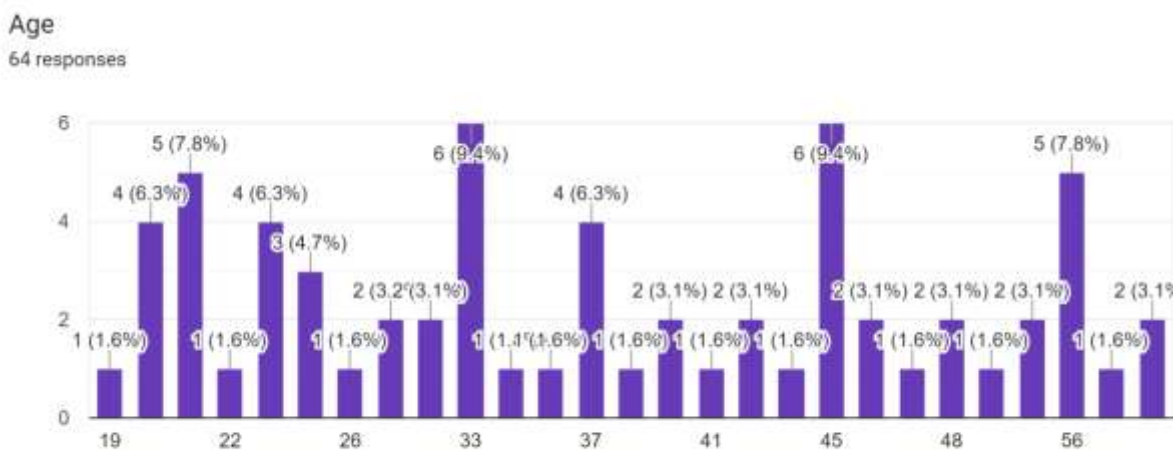




TABLE 1: Mean and standard deviation of the symptoms of chronic rhinosinusitis as given in SNOT -22 questionnaire.

	Mean	Std. Deviation
How severe is your nasal blockage?	2.97	1.054
Do you have a runny nose?	1.42	0.973
Do you have a cough?	0.52	0.756
How often do you sneeze in a day?	1.25	1.127
Do you have a need to blow your nose?	1.56	0.906
Do you experience post-nasal discharge	2.3	0.954
Do you have thick nasal discharge?	0.75	0.816
Do you have ear fullness?	0.78	0.881
Do you have any episodes of dizziness?	0.41	0.811
Do you have ear pain ?	0.47	0.59
Do you have facial pain/pressure?	1.2	1.311
Are you experiencing a decreased sense of smell/taste?	0.59	1.003
Are you finding it difficult to fall asleep?	0.78	1
Do you wake up at night because of your symptoms?	0.61	0.866
Have you experienced any lack of a good night's sleep?	0.73	1.012
Do you wake up tired due to your symptoms?	0.78	1



Do you experience any fatigue?	0.89	0.875
Is your daily work affected because of your symptoms?	1.02	1.016
Has your concentration been reduced due to these symptoms?	0.83	0.865
Are you frustrated/restless/irritated about your symptoms?	1.13	0.934
Are you sad because of your symptoms?	0.7	1.064
Are you embarrassed of your symptoms?	0.52	0.854

IV. DISCUSSION:

In our study, table 1 shows that a mean of 2.97 of patients with chronic rhinosinusitis suffered from nasal blockage which affects their concentration in work. On average, 1.56 patients needed to blow their noses constantly. Mean of 2.3 of patients had post nasal discharge worsening their quality of life. 2.3 individuals on average reported having facial pain. These symptoms have an impact on their daily work varying in degree based on the severity of symptoms. A mean of 1.02 patients had their work life affected because of symptoms of chronic rhinosinusitis.

According to studies, the symptoms of chronic rhinosinusitis interfere with sleep, including trouble falling asleep, poor quality sleep, and waking up tired in the morning. Studies that compared the symptoms of patients with chronic rhinosinusitis with those of healthy individuals showed that the symptomatic patients had a lower quality of life than the healthy individuals. According to some studies, surgical treatment for the symptoms of chronic rhinosinusitis enhanced patients' quality of life.

V. CONCLUSION :

The SNOT - 22 questionnaire responses we have reveal that patients with chronic rhinosinusitis have the lowest quality of life ratings.

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