

ORIGINAL RESEARCH

Observational Study on Patients Reported with Chronic Rhinosinusitis at a Tertiary Care Hospital

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ABSTRACT

Background: Chronic rhinosinusitis (CRS) represents a common source of ill health, affecting 5%–12% of the general population. The present study was conducted to assess patients with chronic rhinosinusitis.

Materials & Methods: The present study was conducted to analyze patients with Chronic Rhinosinusitis. Medical records of 120 patients were reviewed with a clinical diagnosis of Chronic Rhinosinusitis. Complete demographic records and complete history were recorded. The data was tabulated and subjected to statistical analysis. The statistical analysis of the data was done using SPSS version 20.0 for windows. The p-value less than 0.05 was predetermined as statistically significant.

Results: Medical records of 120 patients were reviewed with a clinical diagnosis of Chronic Rhinosinusitis. Maximum patients had history of reactive airway disease (25%) followed by history of tobacco exposure (18.33%). 33.33% patients had rhinorrhea the most common symptom followed by congestion (26.66%). The results on comparison were observed to be statistically non-significant ($p > 0.05$).

Conclusion: The present study concluded that the most common symptom experienced by patients was rhinorrhea and maximum patients had past medical history of reactive airway disease.

Keywords: Rhinorrhea, Reactive Airway Disease, Chronic Rhinosinusitis.

INTRODUCTION

Chronic rhinosinusitis (CRS) is defined as a chronic inflammatory disorder of the nose and paranasal sinuses.^{1,2} The clinical presentation consists of an impaired sense of smell, facial pain or pressure, postnasal drip, rhinorrhoea and/or nasal congestion for a consecutive period of at least 12 weeks.¹ CRS can be divided into two major subtypes: with (CRSwNP) or without (CRSsNP) nasal polyps.³ By definition, patients with CRSwNP must report the presence of anterior or posterior rhinorrhea, nasal congestion, hyposmia and/or facial pressure or pain lasting for greater than 12 weeks duration.⁴ However, these subjective findings are neither sensitive nor specific for CRSwNP alone and are used to also characterize patients who have chronic rhinosinusitis without nasal polyps (CRSsNP).⁵ CRS brings about significant physical symptoms, such as nasal blockage, rhinorrhea, a reduced sense of smell, facial pain or pressure and headache, which are persistent although not fatal

and result in considerable negative influences on patients' daily lives and emotions. CRS-associated loss of quality of life (QoL) is becoming increasingly concerning. Specifically, from the patient's perspective, the manner in which CRS affects daily life is far more important than the results of medical examinations such as CT scans.⁶ The cornerstone of CRS treatment includes saline rinsing and anti-inflammatory treatment with prolonged topical or short-course oral corticosteroids.¹ Functional endoscopic sinus surgery (FESS) is recommended in case of failure of maximal pharmaceutical treatment. Nonetheless, a substantial percentage of CRS patients still experiences bothersome symptoms interfering with daily life despite standard pharmaceutical and surgical therapy.⁷ The present study was conducted to assess patients with chronic rhinosinusitis.

MATERIALS & METHODS

The present study was conducted to analyze patients with Chronic Rhinosinusitis. Before the commencement of the study ethical approval was taken from the ethical committee of the institute and informed consent was taken from the patient. Medical records of 120 patients were reviewed with a clinical diagnosis of Chronic Rhinos sinusitis. Complete demographic records and complete history were recorded. All patients included in the study carried a clinical diagnosis of chronic rhino sinusitis as defined by the presence of thick nasal discharge and productive cough for a minimum of 3 months and confirmation of mucopurulent secretions in the nasal cavity via anterior rhinoscopy. The data was tabulated and subjected to statistically analysis. The statistical analysis of the data was done using SPSS version 20.0 for windows. The Student's t-test and Chi square test were used to check the significance of the data. The p-value less than 0.05 was predetermined as statistically significant.

RESULTS

Medical records of 120 patients were reviewed with a clinical diagnosis of Chronic Rhinos sinusitis. Maximum patients had history of reactive airway disease (25%) followed by history of tobacco exposure (18.33%). 33.33% patients had rhinorrhea the most common symptom followed by congestion (26.66%). The results on comparison were observed to be statistically non significant ($p > 0.05$).

Table 1: Past medical history and frequency of patients

Past medical history	N(%)	p-value
Anemia	20(16.66%)	0.25
Reactive airway disease	30(25%)	
Middle ear disease	17(14.16%)	
Eczema	19(15.83%)	
Tobacco exposure	22(18.33%)	
Family history of asthma	12(10%)	

Table 2: Frequency of common symptoms experienced by the patients

Common symptoms	N(%)	p-value
Nasal obstruction	21(17.5%)	0.22
Congestion	32(26.66%)	
Cough	27(22.5%)	
Rhinorrhea	40(33.33%)	

DISCUSSION

According to EPOS guidelines, uncontrolled disease is defined by the presence of three or more of the following features: nasal blockage, anterior or posterior nasal secretions, facial pain, impaired sense of smell and sleep disturbance or fatigue; in addition to signs of diseased sinonasal mucosa and/or need of long-term antibiotics or systemic corticosteroids in the past 1-3 months.⁶ Forty per cent of patients were found to be uncontrolled despite pharmaceutical and surgical treatment in a tertiary referral centre.⁸

Medical records of 120 patients were reviewed with a clinical diagnosis of Chronic Rhinosinusitis. Maximum patients had history of reactive airway disease (25%) followed by history of tobacco exposure (18.33%). 33.33% patients had rhinorrhea the most common symptom followed by congestion (26.66%). The results on comparison were observed to be statistically non-significant ($p > 0.05$).

Gutiérrez C et al did a retrospective analysis of chronic rhinosinusitis in patients with cystic fibrosis. Of the patients, 64% were male and the median age was 23 years. The most frequent mutations found were $\Delta F508$, M470 and R553. All of the patients with $\Delta F508$ mutation had nasal polyps. 100% of the patients had clinical findings of chronic rhinosinusitis. All the patients had endoscopic nasal surgery. The median number of endoscopic surgeries was 2.⁹

Dejaco D et al did a prospective observational study, they compared continued nasal steroids and irrigation (cNSI), repeated MMT (rMMT), pulsed nasal steroid inhalation (PSI), and endoscopic sinus surgery (ESS).. The mean (\pm standard deviation [SD]) duration since last MMT was 144 (± 36 days). Of the 130 patients, 52 selected cNSI, 16 PSI, 19 rMMT, and 43 ESS. Mean SNOT-22 scores before treatment did not significantly differ between treatments ($P = .99$). Overall, SNOT-22 scores decreased from 38 ± 2 before treatment to 20 ± 2 after 1 year ($P < .001$), with a higher reduction for patients having CRS with nasal polyps than for those without nasal polyps (35 ± 2 to 15 ± 2 vs 41 ± 3 to 25 ± 4 , respectively; both $P < .001$). Overall, no difference between the 3 medical treatments was observed (all $P > .2$). Post-treatment scores following ESS (19 ± 2) were significantly lower than for each of the 3 medical treatments (cNSI 26 ± 2 , $P = .004$; PSI 27 ± 3 , $P = .026$; rMMT 28 ± 3 , $P = .008$). At 1 year following ESS, 26 of 31 patients were asymptomatic and did not require additional systemic steroids, compared to 25 of 50 patients following medical treatment ($P = .002$).¹⁰

Ali A et al retrospectively analyze patients with chronic rhinosinusitis visiting in hospital. A total of patients was selected for the study. We observed that 21 patients had history of anemia, 35 patients had history of reactive airway disease, 18 patients had the history of middle ear disease, 19 had history of eczema, 34 had history of tobacco exposure and 19 patients had family history of asthma.¹¹

CONCLUSION

The present study concluded that most common symptom experienced by patients was rhinorrhea and maximum patients had past medical history of reactive airway disease.

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