

Evaluating symptoms of chronic rhino sinusitis and most common sinuses affected

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Abstract

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Background: Chronic rhinosinusitis is a common condition that significantly affect the quality of life, high health-care consumption and significant comorbidity.

Objective: To investigate and identify the symptoms that are most often experienced by people with chronic rhinosinusitis.

Patients and Methods: In this cross-sectional study, we conducted one hundred patients complaining of chronic rhinosinusitis presented to the outpatient clinic for otolaryngology at Baquba teaching hospital; the patients were chosen randomly. A careful clinical examination following comprehensive history taking done for all of the patients. All patient's main complaint were nasal airway obstruction, nasal discharge, and anosmia. In addition to a clinical evaluation, a computed tomography (CT) scan of the nose and paranasal sinuses was performed,. And Diagnostic nasal endoscopy

Results: The population under investigation had a mean age of 35 years and was mostly comprised of males. The majority of patients in this study reported a common symptoms, including nasal congestion (72%), headache (68%), and rhinorrhea (mucus discharge) (58%)

Conclusion: Chronic rhinosinusitis is characterised by a set of symptoms that, if caught early, may be diagnosed and treated effectively.

Keywords: chronic rhinosinusitis, Rhinorrhea, nasal congestion.

Introduction

In 1996, the American Academy of Otolaryngology-Head & Neck Surgery multidisciplinary Rhinosinusitis Task Force (RTF) characterized adult rhinosinusitis diagnostic criteria [1].

Main considerations included facial pain or pressure, nasal obstruction or blockage, nasal discharge or purulence or discolored postnasal release, hyposmia or anosmia, purulence in the nasal cavity, and fever. In 2003, the RTF's definition was revised to require corroborative radiographic or nasal endoscopic or physical examination

discoveries notwithstanding suggestive history [2, 3].

Chronic Rhinosinusitis, often known as CRS, is an inflammation of the mucosal lining of the nose and the paranasal sinuses that lasts for an extended period of time. That lasts for a total of 12 weeks and includes at least two of the following symptoms; nasal congestion, mucous discharge from the nose, postnasal drip, and anosmia. CT scans and nasal endoscopies are used to examine the nasal cavity and the sinuses that are located behind the nose in order to identify any anatomical

differences in the nasal structures [4]. Chronic sinusitis can be non-infectious and related to allergy, cystic fibrosis, gastroesophageal reflux, or exposure to environmental pollutants [5, 6].

Allergic rhinitis, non-allergic rhinitis and anatomic obstruction in the ostiomeatal complex, together with corrupted immunologic elements are identified as risk factors for chronic sinusitis [7].

Endoscopy is not capable of visualizing the posterior ethmoid and sphenoid sinuses, but a CT scan can. This enables the CT scan to determine mucosal illness of the sinuses as well as the main obstructive pathology. Additionally, the CT scan can image these sinuses details more clearly. The use of nasal endoscopy on the other hand, allows for the detection of minor, localised forms of disease in the nasal cavity.

There are several potential contributors to the development of chronic sinusitis. These include blockages in the airways brought on by asthma, allergies, or nasal polyps. Infections, which may be bacterial, viral, or fungal in nature, cause patients to suffer from symptoms such as headache, nasal discharge,

post nasal drip, and a change in the size of their pupils. [8].

Patients and Methods

One hundred patients complaining of chronic rhinosinusitis were conducted randomly at the outpatient clinic for otolaryngology at Baquba teaching hospital. A comprehensive history was taken as well as a clinical examination was performed. After the standard complete blood count and evaluation of coagulation analyses, such as prothrombin time, partial thromboplastin time, and clotting time, the patient underwent systematic anterior rhinoscopy, posterior rhinoscopy, nasal endoscopy, and computed tomography (CT) of the nose and paranasal sinuses for diagnoses.

Statistical Analysis

Data were collected after questionnaire completion. Data were calculated using frequency and percentages.

Results

The age range of the patients was 15 to 64 years with an average of 35 years. Sixty percent male, and 40% female patients.

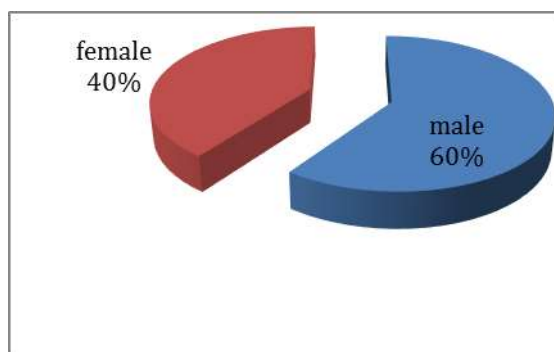


Figure (1): Age distribution of the patients

Seventy two percent of the patients in this research reported nasal congestion, whereas 68% reported headaches, 58% rhinorrhea (mucus discharge), 22% myofascial pain, and

19% reported smelling problems (smelling nothing). The majority of individuals who participated in this research had two or more of the symptoms Figure(2).

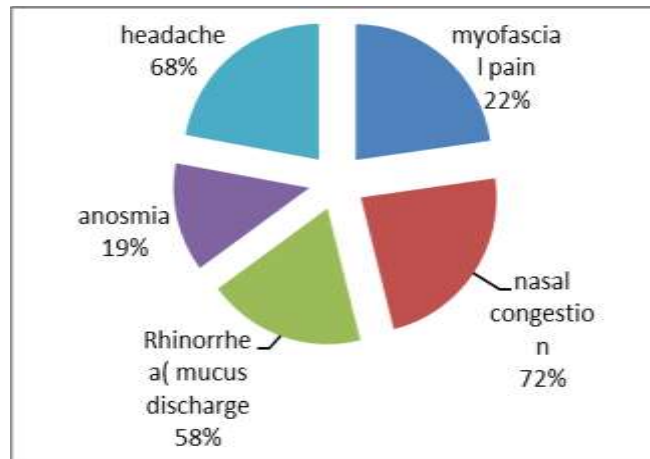


Figure (2): Show nasal symptoms distributions of chronic rhinosinusitis

In terms of the radiological results about the prevalence of sinusal opacities, 80% of the patients had inflammation of the maxillary sinuses, 70% had inflammation of the anterior ethmoid sinuses, and 32 % had inflammation of the frontal sinuses

.Inflammation of the posterior ethmoid sinuses accounts for 28% of cases, whereas inflammation of the sphenoid sinuses accounts for 11% of cases; in most cases, more than one sinus is affected Figure (3).

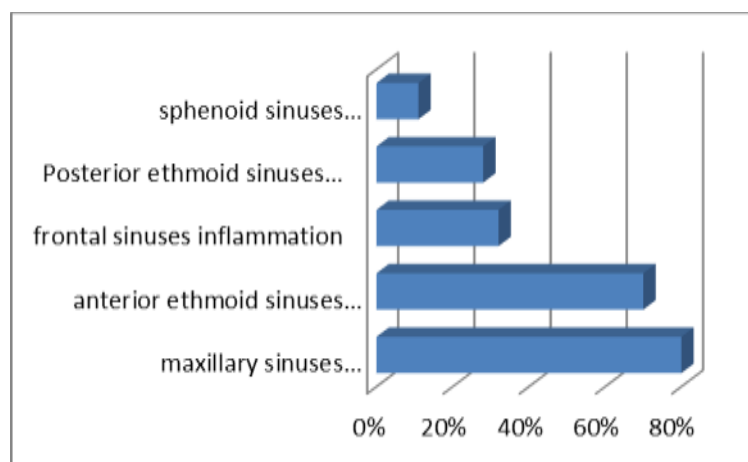


Figure (3): Shows findings on CT of chronic rhinosinusitis and most common paranasal sinusal inflammation

Discussion

Anatomical changes affecting the nose and paranasal sinuses (PNS) are one of the most prevalent causes of chronic rhinosinusitis. These differences may be detected with the use of a computed tomography (CT) scan. Nasal polyp best identified by diagnostic nasal endoscopy. These anatomical variances and nasal polyps have the potential to impede the mucociliary drainage of the PNS, which may lead to sinusitis [9].

According to the findings of this study, chronic rhinosinusitis is more frequent in men. The maxillary sinus was the most common sinus to be affected owing to infection or inflammation (80%), while the anterior ethmoid sinus accounted for 70% of cases. This finding is consistent with those that were conducted by Nitin V. Deosthale and colleagues [10].

According to the findings of the current study, the most frequent nasal symptoms are nasal congestion (72%), headache (68%), and rhinorrhea (mucus discharge) (58), in that order. This conclusion is consistent with the study that was conducted by Slobodan Savovi et al. [11, 112,13] who also found that anosmia affects 19% of patients diagnosed with chronic rhino sinusitis This finding also agrees with the findings of the experiments carried out by Maria V et al [14,15,16,].

Conclusions

According to the findings of this cross-sectional study, the most prevalent symptom of the chronic rhinosinusitis is nasal congestion. Anatomically, the maxillary sinus and the ethmoidal sinus are the ones that are affected the most. In patients with chronic rhinosinusitis, a careful assessment

of the nose and paranasal sinuses by CT scan is important in order to determine the sinuses mostly affected, particularly in patients who are going to have endoscopic surgery.

Recommendations

Study the relation between unilateral sinus diseases and myofascial pain and should differentiate it from migraine headache. Make the study more specific by studying the relation between the anatomical variation of nose and Para nasal sinus with chronic sinusitis like the relation between septal deviation and maxillary sinusitis.

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Ethical clearance: Ethical approval was obtained from the College of Medicine / University of Diyala ethical committee for this study.

Conflict of interest: Nil

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تقييم أعراض التهاب الجيوب الأنفية المزمن والجيوب الأنفية الأكثر عرضة الى الإصابة

قيس جعفر خلف¹

الملخص

خلفية الدراسة: التهاب الجيوب الأنفية المزمن هو حالة شائعة تؤثر بشكل كبير على الأشخاص الذين يعانون منها حيث يعانون من الكثير من الاعراض منها الصداع المزمن . سيلان الانف واحتقان الانف.
اهداف الدراسة: لتحديد الاعراض التي يعاني منها الأشخاص المصابون بالتهاب الأنف و الجيوب المزمن وكذلك اي الجيوب الاكثر تأثرا من المرض.

المرضى والطرائق: دراسة مقطعية اجرية على مائة مريض يشكون من التهاب الجيوب الأنفية المزمن تم فحصهم في العيادة الاستشارية لطب الأنف والأذن والحنجرة في مستشفى بعقوبة التعليمي. تم اختيار المرضى بشكل عشوائي. إجراء فحص سريري دقيق بعد أخذ التاريخ الشامل لجميع المرضى. كانت الشكوى الرئيسية للمريض هي انسداد مجرى الهواء الأنفي، وإفرازات الأنف، وفقدان حاسة الشم. بالإضافة إلى التقييم السريري، تم إجراء تصوير مقطعي المفراس الحلزوني للأنف والجيوب الأنفية. وكذلك إجراء الناظور التشخيصي للأنف.

النتائج: كان متوسط عمر المرضى ٣٥ سنة وكان معظمهم من الذكور. الاعراض التي كان يعانون منها في هذه الدراسة أعراض شائعة، حيث كان يعانون من احتقان الأنف (٧٢٪)، والصداع (٦٨٪)، وسيلان الأنف (إفرازات مخاطية) (٥٨٪).
الاستنتاجات: وفقا لنتائج هذه الدراسة المستعرضة، فإن أكثر أعراض التهاب الجيوب الأنفية المزمن هو احتقان الأنف ، وان الجيب الفكي العلوي والجيب الغربالي هما الأكثر تأثراً. وكذلك ان المرضى الذين يعانون من التهاب الجيوب الأنفية المزمن يخضعوا الى فحص سريري شامل ودقيق مع اجراء فحص المفراس الحلزوني للأنف والجيوب الانفيه واجراء المنظار للأنف .

الكلمات المفتاحية: التهاب الجيوب الأنفية المزمن، سيلان الأنف، احتقان الأنف

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