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CLINICAL OUTCOME IN COMBINED THERAPY OF SINONASAL SALINE LAVAGE WITH INTRA-NASAL CORTICOSTEROID SPRAY IN CHRONIC RHINOSINUSITIS

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ABSTRACT

A prospective study was done over a period of 2 years where 78 patients with chronic rhinosinusitis were treated with sinonasal saline lavage and corticosteroidal nasal spray and results were observed. Symptomatic relief was observed in a significant proportion of patients. Combined therapy of sinonasal lavage with topical corticosteroidal spray is a definite adjunctive treatment for improvement of overall symptoms in chronic rhinosinusitis.

KEYWORDS

Sinonasal, Lavage, Rhinosinusitis

INTRODUCTION:

Chronic rhinosinusitis (CRS) refers to the inflammation and infection affecting the nose and paranasal sinuses (PNS) when the duration of symptoms is more than 12 weeks.The incidence of this multifactorial disease is increasing in India over the recent years. Nasal lavage with isotonic sodium chloride solution facilitates clearance of the infective nasal secretions and removal of debris and dead tissues from the nasal cavity. It also allows restoration of normal mucociliary function [1]. The efficacy of intranasal glucocorticoids in the management of CRS with or without nasal polyposis has been well demonstrated [2]. The protocol of combining saline nasal lavage followed by intranasal steroid application as an adjunctive treatment has resulted in faster relief of symptoms and early recovery. Saline nasal lavage has also been seen to improve the clinical effectiveness of intranasal steroid [3].

OBJECTIVE:

The present study aims to assess the effect of saline nasal lavage followed by intranasal steroid application as an adjunctive treatment on the sinonasal symptoms and quality of life in patients with CRS.

MATERIALS AND METHODS:

The present study was carried out on 78 patients suffering from chronic rhinosinusitis in the department of E.N.T., Institute of Medical Sciences & SUM Hospital, Bhubaneswar, Odisha from April 2015 to March 2017. After thorough explanation regarding the study, consent was obtained from the patients. Normal saline and Fluticasone nasal spray were used as the irrigating solution and intranasal steroid application respectively. For irrigation, a 50 ml syringe without needle was used. For intranasal steroid application Mygind technique was used, by lying supine with the head extended off a surface, followed by head rotation from side to side after instillation of nasal medication. The procedure was followed once a day for three months.

OBSERVATION:

Table-1: Symptoms of CRS in various age groups of patients before therapy.

Symptoms	15-25 years	25-35 years	35-45 years	Total
Nasal blockage	21	31	20	72(92.3%)
Nasal discharge	26	23	18	67(85.9%)
Headache	11	26	16	53(67.9%)
Hyposmia / Anosmia	3	6	7	16(20.5%)
Pain/pressure/ Fullness of ear	6	3	1	10(12.8%)

Table-2: Symptoms of CRS in various age groups of patients after therapy.

Symptoms	15-25 years	25-35 years	35-45 years	Total
Nasal blockage	6	5	10	21(26.9%)
Nasal discharge	7	4	7	18(23%)
Headache	3	5	2	10(12.8%)
Hyposmia / Anosmia	2	1	3	6(7.6%)
Pain/pressure/ Fullness of ear	2	0	0	2(2.5%)

It was observed that nasal obstruction (92.3%) was the most common symptoms followed by nasal discharge (85.9%). Headache (67.9%), Hyposmia/Anosmia (20.5%), Pain/pressure/fullness of ear (12.8%) were the other presenting symptoms (Table-1). The principal symptom of nasal obstruction was reduced from 92.3% to 26.9% after therapy. Nasal discharge was also seen to be reduced from 85.9% to 23%. There was also reduction in symptoms of headache, hyposmia/anosmia, pain/pressure/fullness from 67.9%, 20.5% & 12.8% to 12.8%, 7.6%, 2.5% respectively (Table-2). Side effects of the procedure like nasal burning, irritation and nausea was found to be minimal.

DISCUSSION:

Debilitating conditions such as nasal blockage, mucopurulent nasal discharge, hyposmia or anosmia, pain/pressure/fullness and headache for duration of three months or more are the presenting features in chronic rhinosinusitis [4]. As per the present study, nasal obstruction was the most common presenting symptom in CRS, which was similar to the findings of a study that reported nasal obstruction and facial congestion to be major presenting symptoms [5]. The present study revealed that, in all the groups of patients, these symptoms were significantly reduced after the combined adjunctive therapy of isotonic saline nasal lavage followed by intranasal corticosteroid spray for three months. This finding was in accordance with studies which revealed that combination of saline nasal lavage and intranasal corticosteroid spray was effective in reducing the symptoms in CRS patients [6]. As per a study, muco-ciliary clearance was improved by nasal irrigations with buffered physiological and buffered hypertonic saline, which was beneficial for treatment of rhinosinusitis. Moreover, buffered hypertonic saline was more irritating than isotonic saline [7]. In the present study, isotonic saline was used for nasal lavages, which was less irritating to the patients.

CONCLUSION:

Medical treatment of chronic rhinosinusitis, which is a multifactorial disease, is quite challenging. An individualized and tailored approach is more effective than a single standard protocol in controlling the symptoms in patients with CRS. The use of adjuvant therapy like saline nasal irrigation and corticosteroid nasal spray are beneficial in earlier recovery by removal of debris and mucopurulent discharge as well as aiding better delivery of topical medication to the target tissue. This adjuvant medical management should be adopted as a trial for maximal medical therapy before considering surgical options.

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