The ROLE OF ALPHINTERN IN TREATMENT OF NASAL POLYPOSIS

Prospective study was performed on patients diagnosed as chronic nasal polyposis who referred to ENT clinic, Benghazi medical center, Benghazi- Libya

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ABSTRACT

INTRODUCTION: Nasal polyposis is a chronic inflammatory disease of the nasal mucosa. The pathogenesis of nasal polyps is still not entirely known, this makes definitive treatment very challenging. The aim of our study is to evaluate the effect of Alphintern on treatment of nasal polyposis.

METHODS: Patients received Alphintern tablet for two weeks. Before and after drug intake all patients were asked to fill in a questionnaire in which they rated their overall symptoms on Visual Analogue Scale (VAS), endoscopic physical findings were scored on the Lindholdt staging system.

RESULTS: 23 patients 14 male and 9 female age range from 25 to 56 years old, statistical analysis shows no significant difference (P>0.05) before and after treatment with alphintern for severity of symptoms and endoscopic staging of nasal polyposis. DISCUSSION: The main goals in the treatment of nasal polyposis, whether medical or surgical are to relief patients symptoms and prevent complication. There are few direct comparisons of medical and surgical treatment in the literature. Those that exist suggest that most patients should be treated medically, with surgery reserved for patients who respond poorly. Intranasal corticosteroids are by far the best documented type of medical treatment for nasal polyposis. Researches for other drugs for the treatment of nasal polyposis was done. In our study the use of Alphintern for treatment of nasal polyposis shows no significant improvement in the severity of symptoms and size of polyp.

CONCLUSION: Topical intranasal steroids are the best documented medical treatment, Alphintern shows no significant effect on management of nasal polyposis, further studies with more patients and longer duration of treatment are required for more evaluation of drug effect.

Key words: nasal polyposis, chronic Rhinosinusitis, alphintern
INTRODUCTION

Nasal polyposis is a chronic inflammatory disease of the nasal mucosa. The prevalence of nasal polyps seems to vary between 1 and 4% of the population\(^\text{(1)}\), Accounts for 40% of chronic nasal disease\(^\text{(2)}\).

Nasal polyposis is the end result of a variety of pathologic processes. The pathogenesis of nasal polyps is still not entirely known and has been debated for many years. This lack of understanding makes definitive treatment very difficult\(^\text{(3)}\).

Although the etiology of nasal polyposis remains unknown, emerging evidence showing elevated local IgE levels and eosinophilic infiltration suggests an allergic etiology\(^\text{(4)}\). Activated eosinophils are a prominent feature of nasal polyps. Their presence in tissue results from a complex series of events that regulates their influx from the vasculature, as well as their movement, activation and survival within the tissue. Several studies have demonstrated that there are many potent chemoattractants that can activate eosinophils and trigger the inflammatory response\(^\text{(3)}\).

Patients with nasal polyposis commonly present with nasal obstruction, nasal discharge, facial pressure/pain, and hyposmia of prolonged duration\(^\text{(5)}\).

The aims of treatment are to relieve nasal blockage, restore olfaction, and improve sinus drainage\(^\text{(6)}\).

Alphintern ®(chemotrypsin-trypsin) is an anti-inflammatory anti edematous medication used to treat ecchymosis and skin bruises it has been used by some local physicians to treat nasal polyposis.

The aim of our study is to evaluate the effect of course of Alphintern on nasal symptoms, and endoscopic finding in patients with nasal polyposis.
MATERIAL

prospective, before-after study was performed on 23 patients diagnosed as chronic nasal polyposis who referred to ENT clinic, Benghazi medical center, Benghazi- Libya in the period from March 2013 to July 2013.

Written consent was obtained from each patients before enrollment into the research project.

Inclusion criteria:

1. Age more than 18 years old
2. Patients with chronic nasal polyposis confirmed by symptoms and signs (nasal obstruction, nasal discharge, smell disturbance, post nasal discharge, headache / facial pain and Bilateral visible nasal polyps)

Exclusion criteria:

1. Clinical feature less than 12 weeks
2. Patients with previous history of nasal or paranasal sinuses surgery or trauma
3. Patients receive oral or topical steroids, antibiotics past month

METHODS

After primary assessment, All patients in this study were subjected to the following after signing the informed consent:

epidemiologic data were collected, including the age and sex.

severity of symptoms (nasal obstruction, nasal discharge, post nasal discharge, smelling disturbance, headache and facial pain) were assessed with the symptom score instrument\(^{(7)}\), which uses a 0-10 visual analogue scale (VAS). Patients rated their symptoms ranging from 0 {no symptoms} to 10 {the most sever condition}. 
Endoscopic physical finding were scored based on the Lildholdt staging system\(^{(8)}\) where:

1. Small polyps not reaching the upper edge of the inferior turbinate
2. Polyps reaching between the upper and lower edge of inferior turbinate
3. Large polyps reaching below the lower edge of the inferior turbinate

Patients received Alphintern tablet 600 mg three times daily for two weeks. Before and after drug intake all patients were asked to fill in a questionnaire in which they rated their overall symptoms on Visual Analogue Scale (VAS)

Endoscopic physical findings before and after treatment were scored on the Lindholdt staging system.
RESULTS

During the study 23 patients with nasal polyposis were enrolled, 14 male and 9 female age range from 25 to 56 years old the mean of visual subjective analogue scale (VAS) scores before and after treatment with alphintern were shown in table (1). The difference between before and after treatment scores was statistically not significant (P value > 0.05) for nasal obstruction, nasal discharge, post nasal discharge, facial pain and smell disturbance.

Table (1). Results of visual subjective analogue scale score before and after treatment

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Before treatment</th>
<th>After treatment</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nasal obstruction</td>
<td>7.5(+/-1.9)</td>
<td>7.1(+/-1.8)</td>
<td>0.5</td>
</tr>
<tr>
<td>Nasal discharge</td>
<td>6.1(+/-1.4)</td>
<td>6(+/-1.5)</td>
<td>0.1</td>
</tr>
<tr>
<td>Post nasal discharge</td>
<td>6.7(+/-1.6)</td>
<td>6.3(+/-1.8)</td>
<td>0.8</td>
</tr>
<tr>
<td>Facial pain and headache</td>
<td>5.7(+/-2.4)</td>
<td>5.3(+/-2.2)</td>
<td>0.2</td>
</tr>
<tr>
<td>Smell disturbance</td>
<td>6.7(+/-2.2)</td>
<td>6.3(+/-2.1)</td>
<td>0.8</td>
</tr>
</tbody>
</table>

Comparison of endoscopic staging of polyposis before and after treatment is shown in table (2). The frequency between before and after treatment scores was statistically not significant

Table (2). Nasal endoscopic staging before and after treatment

<table>
<thead>
<tr>
<th>Endoscopic staging</th>
<th>frequency</th>
<th>Before treatment</th>
<th>After treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage I</td>
<td>3</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Stage II</td>
<td>11</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>Stage III</td>
<td>9</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>
DISCUSSION

The management of nasal polyposis is undoubtedly a controversial subject. The main goals in the treatment of nasal polyposis are relief of patients' symptoms and prevention of complication (9), whether medical or surgical. There are few direct comparisons of medical and surgical treatment in the literature. Those that exist suggest that most patients should be treated medically, with surgery reserved for patients who respond poorly (6). Oral and Intranasal steroids are by far the best documented type of medical treatment for nasal polyposis (10).

most of the publications are aimed at the registration of new molecules from the pharmaceutical industry which explains why they are confined to a single agent. Payman et al (11). study the efficacy of clarithromycin in patients with severe nasal polyposis and found that a course of clarithromycin significantly improved nasal symptoms, polyp size and CT scan finding. Kieff et al (12). study the effect of montelukast in the treatment of nasal polyposis they found that montelukast appears to be beneficial for some patients with nasal polyposis. Patients with perennial allergies and nasal polyposis seem more likely to respond to the treatment than those with nonallergic nasal polyposis. Haye R et al (13). study the effect of cetirizine on symptoms and signs of nasal polyposis, found that The number and size of polyps remained unchanged during the study period. Kroflic B et al (14). study the effect of topical furosemide versus oral steroid in preoperative management of nasal polyposis and found that Subjective symptoms and endoscopy scores did not differ significantly between the groups after the treatment, although improvement of olfaction was significantly better in the steroid group. Helbling et al (15). study the efficacy of intranasal amphotericin B on nasal polyposis and found that nasal amphotericin B spray is not effective for nasal polyps and may even cause deterioration.

our study was developed to gain more insight into the effects of Alphintern in treatment of nasal polyposis.
Each tablet of Alphintern contains chemotrypsin and trypsin and has a synergistic anti-inflammatory and anti-edematous action of two potent proteolytic enzymes, affecting the exudative phase of inflammation and ensuring the destruction of peptidic chains in inflammatory processes, regardless of origin, used to treat ecchymosis and skin bruises it has been used by some local physicians to treat nasal polyposis.

A variety of methods may be used for measuring symptom severity in chronic rhinosinusitis patients. Although Sinonasal Outcome Test-22 (SNOT-22) has been shown to be the best available test for subjective classification\(^\text{16}\), however, its use is time consuming and rather complicated in a busy clinic. Using simpler methods like VAS scoring is more feasible and enables an accurate and repeatable evaluation of symptoms\(^\text{7}\).

In the current study 23 patients were enrolled to this study, 14 male and 9 female age range from 25 to 56 years old. Statistical analysis shows no significant difference (P>0.05) before and after treatment with Alphintern for severity of symptoms and endoscopic staging of nasal polyposis.

**CONCLUSIONS**

- Topical intranasal steroids are the best documented medical treatment
- Alphintern shows no significant effect on management of nasal polyposis,
- further studies with more patients and longer duration of treatment are required for more evaluation of drug effect.
REFERENCES


