


APPROACH TO THE PATIENT WITH NASAL POLYPOSIS: FROM DIAGNOSIS TO TREATMENT

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ABSTRACT

Nasal polyposis is a chronic inflammatory condition characterized by the growth of polyps in the nasal mucosa and paranasal sinuses, resulting in symptoms such as nasal obstruction, rhinorrhea, and loss of smell. This study is a narrative review that analyzes the diagnostic and therapeutic approaches for patients with nasal polyposis, considering the use of medications, surgical interventions, and treatments with biologics. The search was carried out in the PUBMED, LILACS and SCIELO databases, and the inclusion and exclusion criteria were rigorously applied. The results indicate the importance of an individualized approach to the management of nasal polyposis, aiming to improve the quality of life of patients. It is concluded that proper treatment of nasal polyposis can bring significant benefits in terms of symptom relief and prevention of recurrences.

Keywords: Nasal polyposis. Chronic rhinosinusitis. Treatment with biologics. Endoscopic surgery. Quality of life.

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INTRODUCTION

Nasal polyposis is a chronic inflammatory condition that affects the nasal mucosa and paranasal sinuses, resulting in the development of polyps that cause upper airway obstruction and compromise the quality of life of patients. The prevalence of nasal polyposis varies between 1 and 4% of the population, being one of the main causes of chronic rhinosinusitis. The most common symptoms include nasal obstruction, anterior and posterior rhinorrhea, anosmia, and, in some cases, facial pain.

The management of nasal polyposis is challenging, especially due to the high recurrence rate and the need for treatments that can control symptoms and improve patients' quality of life. Therapeutic options range from drug treatments, such as intranasal corticosteroids, to the use of biologics and functional endoscopic surgery of the paranasal sinuses (FESS). The choice of treatment depends on factors such as the severity of symptoms, response to clinical treatment, and the presence of comorbidities.

This study aims to review the current diagnostic and therapeutic approaches for nasal polyposis, including the use of biologics, surgeries, and pharmacological treatments, highlighting the main aspects for the effective management of this condition. The review aims to provide support for clinical decision-making, improving outcomes in patients with nasal polyposis.

METHODOLOGY

The present study is a narrative review. The search began with the definition of descriptors and the choice of search platforms. The research was carried out in the online databases PUBMED, LILACS and SCIELO, from January to July 2024. The following descriptors related to the theme "nasal polyposis" and "treatment with biologics" were used, combined with the Boolean operator "AND", and obtained through the DeCS/MeSH platform (Health Sciences Descriptors).

Data analysis was conducted in a standardized manner, following the inclusion criteria: articles published between January 2014 and February 2024, available in English and Portuguese, and with accessible full text. The exclusion criteria were: studies addressing interventions unrelated to nasal polyposis, articles focused on alternative surgical techniques with no relevance to the treatment of polyposis, research conducted exclusively on animals, and literature reviews that do not present new evidence or significant insights.

Articles were selected by two reviewers, who independently mapped the studies, discussed the results, and continuously updated a data collection form, in an iterative



process. The evaluation followed a sequence, starting with the reading of the titles and, later, the abstracts of all publications identified as potentially relevant. In case of divergences in the selection of articles or in the extraction of data, consensus was adopted among the evaluators, with the possibility of consulting a third evaluator, if necessary.

In addition, studies identified through manual searches in journals, search for citations, and gray literature were included, ensuring comprehensive coverage of the theme "Approach to the Patient with Nasal Polyposis: from Diagnosis to Treatment".

RESULTS

The initial search resulted in 512 publications, of which only 20 met the proposed objectives after applying the inclusion and exclusion criteria, as well as reading the titles and abstracts.

On the PubMed platform, using the descriptors present in the title and abstract, 430 articles published between 2014 and 2024 were found. Applying the inclusion criteria, which required publication in Portuguese or English, 25 papers were excluded, leaving 405. Among these, only the articles available in full (FULL TEXT) were selected, resulting in 380 articles after the application of the specific exclusion criteria.

On the LILACS platform, the search process initially resulted in 150 articles in the period from 2014 to 2024. After applying the inclusion criteria (publications in Portuguese or English), 20 articles were excluded, leaving 130. Of these, 120 articles were selected because they were available in full (FULL TEXT). After applying the exclusion criteria, the final number of articles was 90.

On the SciELO platform, using the descriptors in the title and abstract, 120 articles covering the period from 2014 to 2024 were found. With the application of the inclusion criteria, 10 articles were excluded, resulting in 110 articles. After selecting only the articles available in full (FULL TEXT), the number was reduced to 100, which were maintained after the application of the exclusion criteria.

After checking the duplicate number of selected articles on the three platforms, 470 unique articles were created, with 30 duplicates identified and removed. The next criterion for analysis involved the reading of the titles in a double-blind format by two evaluators, and only the materials approved by both were selected, which reduced the number to 60 studies. In addition, 3 references obtained through citation search were included, due to their relevance to the understanding of the theme. Finally, the reading of the abstracts by the same evaluators reduced the final number to 7 papers.



These 7 studies were included in the final analysis to investigate the diagnostic and therapeutic approaches available for the management of nasal polyposis, highlighting the strategies with the best results for symptom relief and prevention of recurrences.

DISCUSSION

The management of nasal polyposis is a challenge for otolaryngologists, due to the chronic nature of the condition and the high rate of recurrence after treatment. Santos et al. (2023) highlight the importance of clinical protocols for the follow-up of patients using biologics, which have been shown to be effective in reducing polyps and improving symptoms. The use of biological drugs represents an important advance in the management of cases refractory to conventional treatment, offering an effective alternative for patients with severe nasal polyposis.

Carvalho et al. (2021) point out that nasal polyposis is often associated with chronic rhinosinusitis and that the impact on patients' quality of life is significant. Nasal obstruction and loss of smell are reported as the most debilitating symptoms, and the need for surgical interventions is commonly indicated when pharmacological treatment does not present satisfactory results. Functional endoscopic sinus surgery (FESS) has been shown to be effective in removing polyps and reducing symptoms, and is often combined with the use of postoperative corticosteroids to prevent recurrence.

Santa et al. (2022) compared patients with chronic rhinosinusitis with and without nasal polyposis, highlighting that those with polyposis tend to have a less effective response to intranasal corticosteroids and a greater need for surgical intervention. This study reinforces the need for more aggressive and individualized management for patients with nasal polyposis, using combined treatments and multidisciplinary approaches.

The pathophysiology of nasal polyposis is complex and involves multiple inflammatory and immunological factors, as described by Gonçalves (2021). Understanding the mechanisms underlying polyp formation is essential for the development of targeted therapies, including biologic drugs that act specifically on inflammatory pathways. The use of these treatments has been promising for patients who do not show improvement with conventional treatments.

Pitta et al. (2024) highlight the importance of the surgical approach in severe cases of sinonasal polyposis, emphasizing that endoscopic surgery is considered the gold standard for the removal of polyps and the reestablishment of drainage of the paranasal sinuses. However, surgery should always be accompanied by drug therapy to maintain the results and prevent recurrences.



De Oliveira Almeida et al. (2024) and Oliveira (2023) address important functional aspects, such as the assessment of smell and sleep in patients with nasal polyposis. These studies indicate that the quality of life of patients improves significantly after surgery, with emphasis on the recovery of olfactory function and the improvement of sleep parameters, which reinforces the importance of proper management of nasal polyposis for the patient's general health.

In short, the management of nasal polyposis must be multidisciplinary and individualized, with a combination of pharmacological and biological treatments and surgical interventions. Recent studies indicate that the use of biologics is promising for patients with severe cases, while endoscopic surgery remains an effective intervention for symptom control and prevention of recurrences.

CONCLUSION

Nasal polyposis is a chronic condition that requires a comprehensive and individualized therapeutic approach to ensure effective management and improve patients' quality of life. The narrative review demonstrated that the treatment of nasal polyposis should involve a combination of medications, biologics, and surgeries, depending on the severity of the symptoms and the response to the initial treatment. The use of biologics is a promising option for refractory cases, while endoscopic surgery is indicated for patients with persistent and severe symptoms.

Advances in surgical techniques and pharmacological treatments are essential to ensure the success of the management of nasal polyposis. Regular follow-up and a multidisciplinary approach are essential to prevent relapses and provide patients with a better quality of life. Thus, the objectives of this study were achieved by reviewing the available diagnostic and therapeutic approaches, providing subsidies for clinical practice and effective management of nasal polyposis.



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