

Regression of dupilumab-induced nasal polyps

Regressão da polipose nasal induzida pelo dupilumabe

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ABSTRACT

We report the case of a patient with chronic rhinosinusitis with nasal polyps treated with dupilumab. The clinical features and impact on the patient's quality of life are described. Computed tomography shows improvement of the inflammatory process and regression of the nasal polyps.

Keywords: Immunobiologic agent, chronic rhinosinusitis with nasal polyps, monoclonal antibody, interleukin-4, interleukin-13, dupilumab.

RESUMO

Relato de caso de paciente com rinossinusite crônica com polipose nasal em tratamento com dupilumabe. São descritos os aspectos clínicos e o impacto na qualidade da vida do paciente. Imagens tomográficas evidenciam a melhora do processo inflamatório e a regressão dos pólipos nasais.

Descritores: Imunobiológico, rinossinusite crônica com polipose nasal, anticorpo monoclonal, interleucina-4, interleucina-13, dupilumabe.

Case report

A 64-year-old male patient sought care with an allergist due to a 10-year history of anosmia associated with controlled moderate asthma and hypersensitivity to nonsteroidal anti-inflammatory drugs. He reported multiple visits to the emergency room and using systemic corticosteroids to relieve respiratory symptoms, particularly anosmia and nasal discharge. He also reported previous intestinal infections due to an inability to smell spoiled food. Furthermore, the patient had undergone two polypectomies, the first one 20 years ago and the second one a year ago. He had a history of heart disease, hypertension, and diabetes. On physical examination, nasoscopy revealed widening of the nasal pyramid and bilateral polyps. The rest of the physical examination was normal. The patient had a total immunoglobulin E (IgE) level of 37.4, and skin tests and serum aeroallergen-specific IgE were normal. Figures 1 and 2 show the initial computed tomography (CT) scans of the paranasal sinuses.

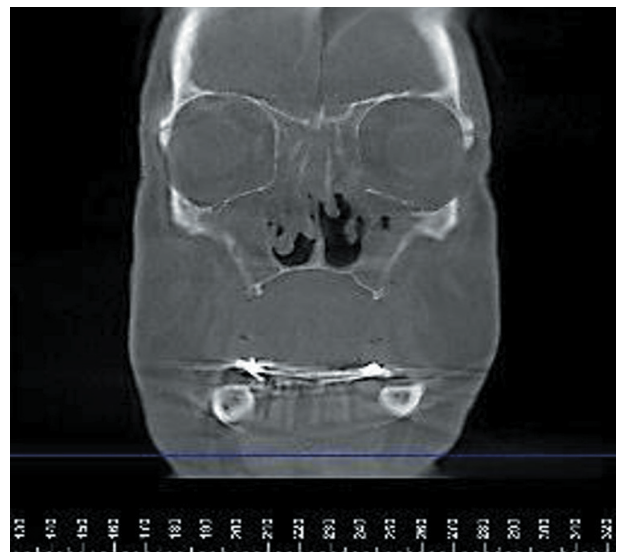


Figure 1

Axial plane showing complete opacification of the sphenoid sinus and the anterior and posterior ethmoid sinuses.

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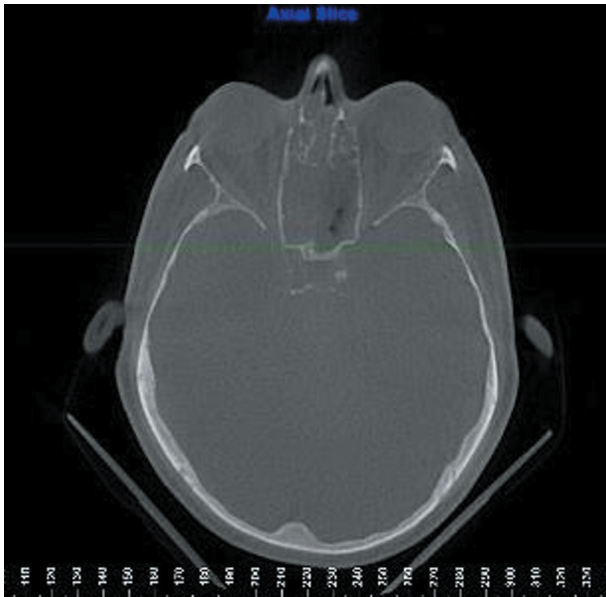


Figure 2
Coronal plane showing opacification of the ethmoid and maxillary sinuses and left inferior turbinectomy.

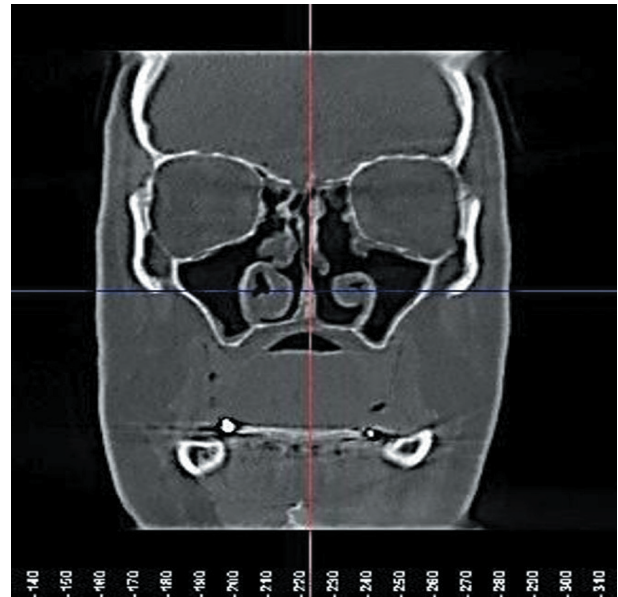


Figure 3
Axial plane showing regression of rhinosinusitis after 8 weeks of treatment.

After patient evaluation, the use of dupilumab was suggested due to the rapid recurrence of polyps, the adverse effects associated with systemic corticosteroids, and the surgical risk, considering the patient's multiple comorbidities. Treatment was initiated with an initial dose of dupixent 400 mg, followed by 200 mg every 14 days. The patient reported recovery of his sense of smell and improved breathing after the third injection. He no longer had intestinal infections due to inability to smell spoiled food, had control of his diabetes, and no longer used systemic corticosteroids. Figures 3 and 4 show CT scans of the paranasal sinuses after 3 months of dupilumab use.

In conclusion, we reported the case of a patient with chronic rhinosinusitis and severe nasal polyposis, with associated comorbidities and polyp recurrence within less than a year after surgery. Almost complete symptom control was achieved after the first injection of dupilumab, thereby improving the patient's quality of life and reducing the impact of systemic corticosteroid use on other comorbidities.

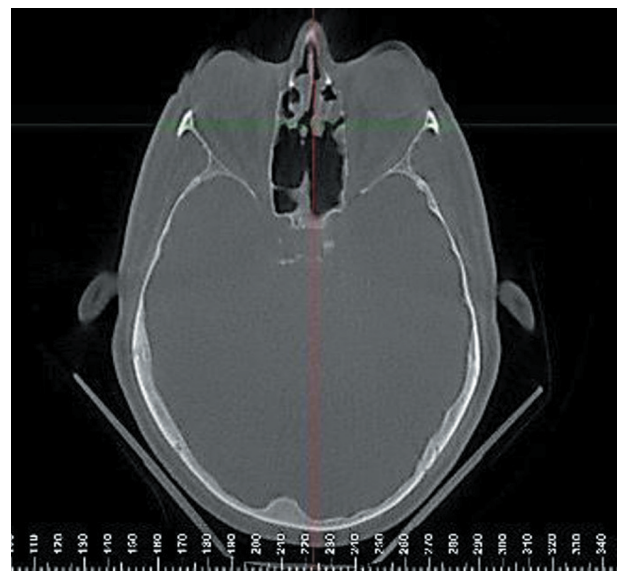


Figure 4
Coronal plane showing regression of rhinosinusitis after 8 weeks of treatment.

No conflicts of interest declared concerning the publication of this article.

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