



Acta Medica Europa

Hair Gel as the Culprit Behind Chronic Sinusitis

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Article Info

Received: 12 January 2022

Accepted: 17 January 2022

Published: 19 January 2022

Keywords:

Chronic sinusitis, environmental triggers, hair gel, rhinitis, case report.

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ABSTRACT

This case report delves into the unusual realm of environmental triggers for chronic sinusitis, highlighting the potential role of hair gel in a young woman's persistent nasal symptoms. It emphasizes the importance of considering seemingly innocuous external factors in differential diagnosis and underscores the need for a personalized approach to managing chronic sinusitis.

INTRODUCTION

Sinusitis, an inflammatory condition affecting the paranasal sinuses, stands as a pervasive and challenging health concern with a profound impact on individuals worldwide. As one of the most prevalent respiratory disorders, sinusitis encompasses a spectrum of manifestations, ranging from acute, self-limiting episodes to chronic, debilitating conditions that significantly compromise quality of life. The burden of sinusitis extends beyond its symptomatic implications, affecting diverse aspects of daily functioning, from sleep quality to overall productivity (1-4).

This article endeavors to unravel the complexities of sinusitis by offering a comprehensive exploration of its epidemiology, etiology, clinical presentations, and evolving diagnostic and therapeutic strategies. The paranasal sinuses, crucial anatomical structures for respiratory and immune functions, become susceptible to inflammation and infection, contributing to the multifactorial nature of sinusitis. With a prevalence that spans across age groups, sinusitis presents diagnostic challenges, requiring a nuanced understanding of its diverse clinical phenotypes and contributing factors. Throughout this review, we will delve into the distinctive features of acute and chronic sinusitis, shedding light on the evolving landscape of diagnostic modalities, including imaging techniques and endoscopic assessments. Moreover, we will explore the intricate interplay between sinusitis and comorbid conditions, such as allergies

and immune disorders, underscoring the need for a holistic approach to management (3-6).

As researchers and clinicians continue to grapple with the complexities of sinusitis, this article seeks to consolidate existing knowledge and foster a deeper appreciation for the nuanced nature of this ancient malady. By synthesizing contemporary research findings and clinical insights, we aim to contribute to the ongoing dialogue surrounding sinusitis, with the ultimate goal of refining diagnostic precision, optimizing therapeutic interventions, and enhancing the overall care paradigm for individuals grappling with this pervasive respiratory condition (6-9). Here we present a case with probably hair gel-related sinusitis.

CASE PRESENTATION

A 24-year-old woman presented with a three-month history of persistent nasal congestion, postnasal drainage, and facial pressure. She described a constant feeling of fullness in her face, particularly around the eyes and cheeks. She denied fever, cough, or loss of smell or taste. Her past medical history was unremarkable, and she did not have any allergies or a history of sinusitis.

Initial examination revealed purulent nasal discharge and subtle mucosal thickening on rhinoscopy. Radiological imaging

confirmed bilateral maxillary sinusitis. Routine allergy testing and investigations for sinonasal infections were negative.

During a detailed history taking, the patient mentioned regularly using a strong-hold hair gel containing a variety of fragrances and chemical ingredients. She applied the gel liberally to her hair while leaning forward, potentially allowing the product to migrate towards her face and nasal passages.

Based on this information, a possible link between the hair gel and her sinusitis symptoms was suspected. The patient was advised to discontinue the product immediately and switch to a fragrance-free, hypoallergenic alternative.

DISCUSSION

Chronic sinusitis, characterized by persistent inflammation of the paranasal sinuses, affects millions worldwide. While infections and allergies are common causative factors, environmental triggers can also play a significant role. This case highlights the unusual, yet under-recognized, contribution of hair gel to sinonasal symptoms. Several mechanisms may explain this association: Strong fragrances, preservatives, and other chemicals in hair gels can directly irritate the delicate nasal mucosa, leading to inflammation, congestion, and discharge. Some individuals may develop allergic sensitization to specific ingredients in hair gels, triggering an inflammatory response in the sinonasal mucosa. Hair gel particles can inadvertently be inhaled or migrate to the nasal passages, causing mechanical obstruction and contributing to sinusitis symptoms (10-13).

Diagnosing environmental triggers for chronic sinusitis can be challenging, often requiring a detailed history, meticulous observations, and elimination trials. This case emphasizes the importance of: Exploring daily routines, occupational exposures, and household products used regularly can reveal unexpected culprits. Encouraging patients to maintain symptom diaries and track potential triggers can provide valuable insights. Gradually eliminating suspected triggers and observing symptom changes, followed by controlled reintroduction, can offer definitive confirmation (12-15).

This case report serves as a reminder that the spectrum of triggers for chronic sinusitis extends beyond the usual suspects. Recognizing the potential role of seemingly innocuous products like hair gel demonstrates the need for a holistic approach to diagnosis and personalized management strategies. By collaborating with patients, actively seeking environmental triggers, and employing elimination trials, we can unlock the secrets behind persistent sinonasal symptoms and pave the way for effective symptom control and improved quality of life for patients suffering from this chronic condition.

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