

Cystic Fibrosis Research News

Title:

Chronic Rhinosinusitis in the era of CFTR Modulator Therapy

Lay Title:

A Review of Cystic Fibrosis Sinus and Nasal Disease response to CFTR Modulator Therapy

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What was your research question?

Does treatment with CFTR modulators improve CF related sinus and nasal disease? Does treatment improve symptoms, imaging appearances, intra-nasal camera appearances or sense of smell experienced by people with CF?

Why is this important?

Sinus and nasal disease is common in people with CF and causes decreased quality of life. Historically, medications and surgical treatments have been burdensome and poorly effective. The benefits of CFTR modulators to the lower airways have been well described, however their impact on the upper airways has received little attention. In writing this review we aimed to summarise currently available knowledge to help healthcare providers develop treatment plans which account for the impact of modulator therapy.

What did you do?

This systematic review summarises current available knowledge outlining the impact of CFTR modulator treatment on sinus and nasal disease. Specifically, we reviewed how symptoms, imaging appearance, intra-nasal camera assessment and sense of smell changed in response to treatment.

What did you find?



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Overall, we found that CFTR modulator treatment improved sinus and nasal disease experienced by people with CF. We found that treatment reduced the burden of symptoms of chronic rhinosinusitis and improved both imaging and intra-nasal camera appearances. We did not find any evidence of change in ability to smell in response to treatment.

What does this mean and reasons for caution?

This research suggests that there is likely to be a decreased symptom burden from sinus and nasal disease in future generations of people with CF, or that sinus and nasal disease will become problematic at a later age. Improvements in symptoms and appearances of sinus and nasal disease have been sustained when measured up to 2 years after starting treatment.

What's next?

CF related sinus and nasal disease remains an under-resourced, priority recognised research gap. Future research is needed to further confirm the findings of this review using standardised measurements to allow for comparability of results.

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<https://pubmed.ncbi.nlm.nih.gov/37690973/>