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Kamla-Raj IJHG 2023

PRINT: ISSN 0972-3757 ONLINE: ISSN 2456-6330

Int J Hum Genet, 23(1): 98-106 (2023)

DOI: 10.31901/24566322.2023/23.01.849

## **Correlations between Postoperative Changes in Nasal Microbes and Recurrence After Chronic Rhinosinusitis**

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**KEYWORDS** 16srDNA. Microbe. miR-155. Recurrence. Sinusitis

**ABSTRACT** The researchers aimed to analyze the correlations of nasal microbiome variations with postoperative recurrence of patients with chronic rhinosinusitis (CRS). Fifty patients receiving surgery for CRS were included. The conditions of patients with and without postoperative recurrence were evaluated by visual analogue scale and Lund-Mackay scores. The nasal bacterial composition before and after operation was analyzed by 16srDNA technology. Preoperative and postoperative operational taxonomic units showed no significant differences. At the phylum level, no significant differences were found in the dominant bacteria before and after operation. At the genus level, *Moraxella* and *Neisseria* had significantly higher proportions after operation than those before operation. *Bacteroides*, *Pseudomonas* and *Streptococcus* in Proteobacteria, Firmicutes and Bacteroidetes had significant differences between patients with and without postoperative recurrence. *Bacteroides*, *Pseudomonas* and *Streptococcus* were correlated with postoperative recurrence. *Bacteroides*, *Pseudomonas* and *Streptococcus* may be implicated in the poor prognosis and postoperative recurrence, as the predictors of CRS.