

## **ABSTRACT**

**TITLE OF ABSTRACT:** Changes in Mucociliary clearance and Olfaction following endoscopic sinus surgery.

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### **OBJECTIVES**

- To study the changes in mucociliary clearance in patient with chronic rhinosinusitis following endoscopic sinus surgery
- To compare the preoperative and postoperative olfactory function following endoscopic sinus surgery in patients with chronic rhinosinusitis

### **METHODS**

This study was a prospective observational trial evaluating the change in mucociliary clearance of the nose and paranasal sinus and olfaction following functional endoscopic sinus surgery in patients diagnosed to have chronic rhinosinusitis (CRS) with or without nasal polyps in the department of ENT in a tertiary hospital over a period of seven months. A preoperative saccharine time( ST) and olfactory function assessment using CCCRC test for all patients. After the surgery, patients were followed up from 3-6 months and tests were repeated at follow up. The changes in saccharine time and olfactory scores were calculated.

### **RESULTS**

A total of 96 patients with CRS were recruited and 68 were followed up. 66% of patients had polyposis and 80% had primary surgery. There was a statistically significant reduction of 26% in mucociliary clearance time( p value 0.01) and 10% improvement of olfactory scores( p <0.05) at follow up. The improvement in mucociliary time was more for patients with polyposis and for those who underwent revision surgery .Majority of patients with anosmia improved to hyposmia in the post operative period although hyposmic patients did not have any significant improvement.