Causes of failure in endoscopic frontal sinus surgery in chronic rhinosinusitis patients

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Background: The frontal sinus is the most challenging area to address in endoscopic sinus surgery (ESS). Incomplete surgery or iatrogenic injury in the narrow space of the frontal recess with synechia formation can lead to recurrence or persistence of disease. The goal of this study was to identify causes of failure of endoscopic frontal sinus surgery and to determine complication rates. Methods: A cross-sectional retrospective study was conducted. Charts and preoperative sinus computed tomography (CT) scans of patients who underwent revision frontal ESS for chronic frontal rhinosinusitis, between 2006 and 2012 were reviewed. Results: Of 829 patients who underwent ESS during the study period, 740 had the frontal recess dissected and frontal sinus opened. Of these, 66 patients had revision surgery of the frontal sinus, with a total of 109 frontal sinuses. The mean \pm standard deviation (SD) age was 52 \pm 12.9 years. Forty patients were male (59.1%). The most common findings were the follo