

Comparing the effectiveness of craniofacial and endoscopic surgical approaches for the treatment of ethmoid sinonasal tumors

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Background: Traditionally, open anterior cranio-facial resection (ACFR) has been considered the gold standard for surgical management of sinonasal malignancies. Recent advances in endonasal endoscopic techniques have led some centers to report comparable outcomes with exclusive endonasal approaches (EEA)

Aim: To examine and compare the surgical outcomes of ACFR and EEA approaches at a tertiary academic center.

Methods: A retrospective cohort analysis of the medical records of all patients undergoing surgical treatment for ethmoid sinonasal malignancy at Stanford Hospital between 1970 and 2013 was conducted using the Stanford Translational Research Integrated Database Environment (STRIDE) database. Outcomes are reported.

Results: Of the 56 surgically managed ethmoid malignancies, 36 (64%) underwent ACFR and 20 (36%) an EEA. The recurrence rate and median time to recurrence was 38.9% (n=22) and 1.75 years for ACF and 45.0% (n=11) and 1.67 years for EEA. After adjusting for age, sex, and adjuvant treatment with chemotherapy and or radiotherapy, no statistically significant difference in recurrence rate or time to recurrence was found between the two approaches. The five-year-survival rates were 11% (n=4) for ACFR and 10% (n=2) for EEA.

Conclusion: From our study, craniofacial and endoscopic surgical resection appear comparable in terms of surgical outcomes for the treatment of ethmoid sinonasal tumor treatment. In addition to comparing two surgical techniques, this retrospective review identified the flaws in data collection regarding surgical procedures. This identification of areas to improve in data collection will benefit the designing of a database for prospective cohort studies that compare surgical techniques for tumor resection.

Biography

Anisha R. Kumar completed her B.A. with *Magna Cum Laude* (high honors) from Harvard University and currently is a M.D. candidate at Stanford University School of Medicine. She is the co-president of the Stanford Women and Medicine Association, executive board member of the Asian Pacific American Medical Student Association, and president of the Otolaryngology Interest Group of Stanford University. She has published several first-author papers in reputed journals and plans to pursue a career in clinical research and cancer treatment.

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