

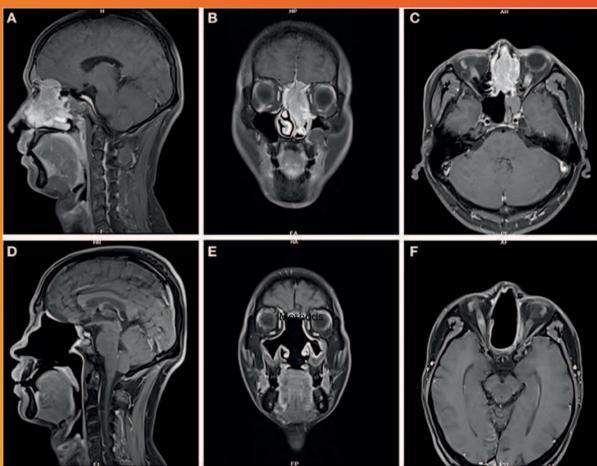
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Endoscopic Esthesioneuroblastoma resection balances strong tumor control with low morbidity, but recurrence risk and underreported Quality of Life highlight the need for long-term, standardized follow-up

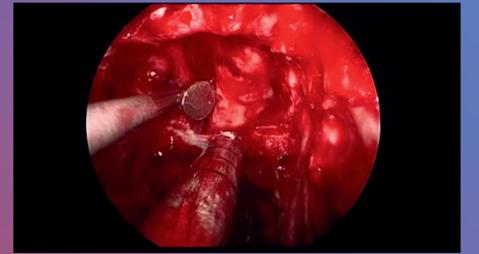
Introduction

- Endoscopic endonasal surgery is increasingly used for esthesioneuroblastoma (ENB)
- Goal: maintain oncologic control while reducing morbidity vs. open craniofacial resection
- Need to better define long-term survival/recurrence and functional outcomes (LOS, QoL)



Methods

- Systematic review + single-arm meta-analysis (PRISMA)
- Databases: PubMed, Embase, Scopus (through Aug 2025)(approx 1200 articles)
- Included studies: ≥5 ENB patients treated with endoscopic resection + reported oncologic/functional outcomes
- Two reviewers extracted: survival, recurrence, complications, LOS, QoL
- Random-effects pooled proportions; heterogeneity via I² and τ²
- Narrative synthesis for outcomes with inconsistent reporting (LOS, QoL)

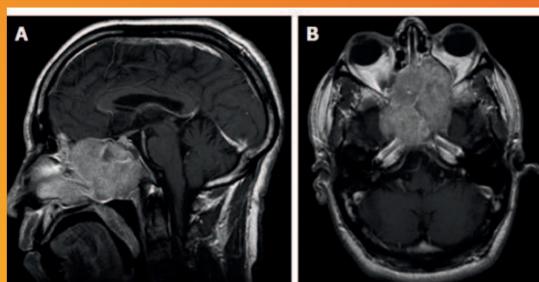
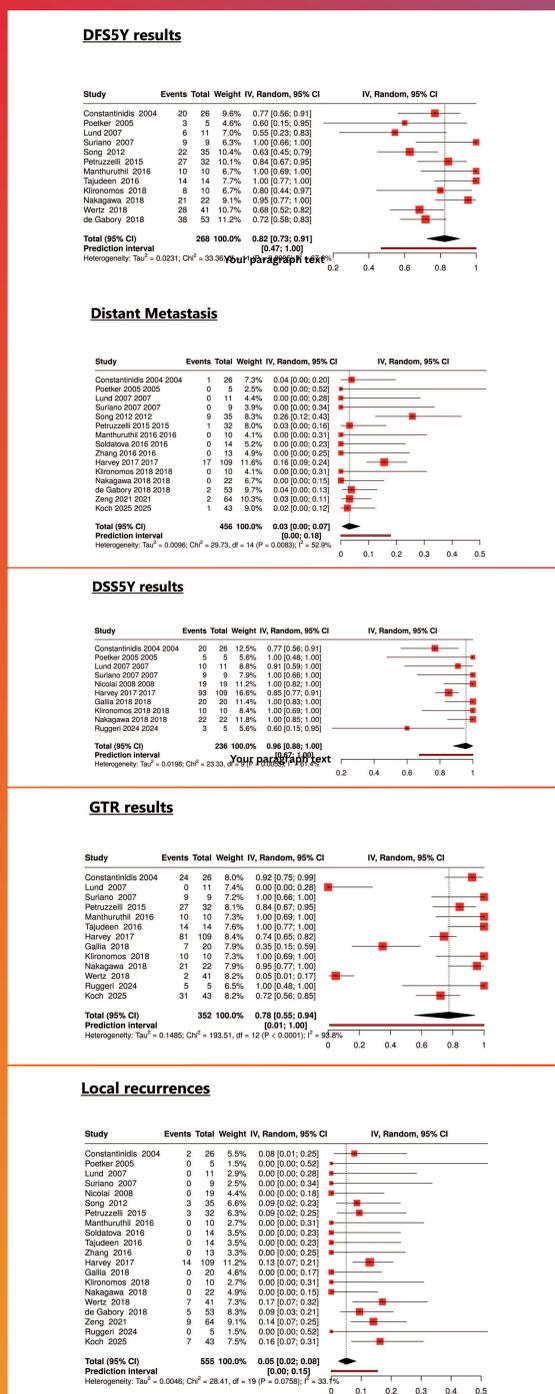


Results

- 20 studies; 555 patients
- 5-year OS: 87% (95% CI 80–93)
- 5-year DFS: 82% (95% CI 73–91)
- Recurrence: ~20%; median time to recurrence just >2 years
- Disease-specific mortality: 3%
- Complications (generally low):
 - CSF leak: ~5%
 - Meningitis: ~3%
 - Ophthalmologic/CN morbidity: ~6%
- Functional outcomes (heterogeneous):
 - LOS reported in 5 studies (n=127) → median reported mean 5.0 days (range 3.7–20.6)
 - QoL in 20 studies (>550 pts); tools varied (SNOT-22, SF-36, ASBQ, etc.) → not poolable
- Most studies suggest stable or improved QoL, but limited baseline-to-post change reporting.

Discussion

- Endoscopic ENB resection shows strong 5-year oncologic control (>80% survival endpoints)
- Major morbidity is uncommon, supporting a favorable safety profile
- LOS appears modest, and QoL trends are encouraging, but evidence is limited by inconsistent reporting
- Future priority: standardized LOS + QoL reporting (common definitions, validated instruments, baseline-to-follow-up change with variance)



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