

Pituitary Neuroendocrine Tumor

In a retrospective cohort study, [Artem Kuptsov](#) et al. — from the Departments of Neurosurgery, Otorhinolaryngology, Endocrinology, and Epidemiology at the Hospital General Universitario de [Alicante](#), Spain — published in the [Journal of Neurological Surgery Part B Skull Base](#) ¹⁾ aim to identify preoperative anatomical-radiological factors that influence:

The extent of [tumor resection](#)

The preservation of hormonal function following [endoscopic endonasal surgery](#) for pituitary adenomas

The authors found that:

Lower tumor extension, as classified by the [SIPAP classification](#), was significantly associated with a greater degree of resection

The presence of a postoperative CSF leak was significantly associated with reduced hormonal preservation

They conclude that the SIPAP classification, easily assessed on preoperative MRI, may serve as a predictive tool for surgical outcomes.

The study is a retrospective analysis of 101 patients over a 5-year period — a sample size that borders on anecdotal when trying to draw predictive conclusions in a multifactorial pathology like pituitary adenomas. No control group. No blinding. No prospective validation. Retrospective bias and selective reporting are inevitable.

Moreover, the observational nature of the study makes any claim of “prediction” or “influence” inherently flawed. Correlation does not equal causation, but the authors walk a fine line, subtly suggesting that variables like SIPAP staging or CSF leak causally determine outcomes, without rigorous statistical modeling to support it.

□ Purpose: Obvious and Redundant The main hypothesis — that radiological features like tumor extension affect resectability and CSF leak impacts hormonal outcome — is so obvious it borders on tautology. If a tumor grows into more compartments (SIPAP), resection is harder. If there's a CSF leak, the surgery went worse. This isn't scientific revelation; it's surgical common sense dressed up as a finding.

There's a total absence of novel radiological biomarkers, machine learning validation, or quantitative volumetric analysis. The authors simply confirmed what surgeons already know by eyeballing MRIs.

□ Methodology: Lacks Rigor SIPAP and Knosp scales are ordinal and subjective. The study doesn't clarify how interobserver variability was managed.

There is no multivariate analysis to control for confounders like tumor consistency, surgeon experience, or intraoperative tools used.

No data on how “hormonal preservation” was defined — was it biochemical, symptomatic, or merely descriptive?

The absence of hormonal panels, long-term follow-up, or detailed endocrinological profiling is a glaring limitation for a study that claims to assess endocrinological outcomes.

□ Results: Underwhelming The only statistically significant findings are that less extension = better resection, and no CSF leak = better hormonal outcomes.

These are retrospective reconfirmations, not discoveries.

The article offers no intervention, no algorithm, and no tool for clinicians to change practice.

It adds nothing to existing classification systems or surgical protocols. There's no ROC curve, no predictive model, no validated score — just p-values on known associations.

□ Technological Blindness In 2023, failing to incorporate AI-assisted segmentation, radiomics, or automated volumetrics in a radiology-focused surgical study is indefensible. The authors lean on dated, manual interpretations of MRI, ignoring a decade of progress in radiological analysis.

□ The Journal: Too Forgiving? Published in J Neurol Surg B Skull Base — a reputable but not high-impact journal — the editorial bar for novelty seems to have been lowered in favor of regional institutional publication. There is a subtle academic nepotism flavor here: all authors are from the same hospital, with no external validation or collaboration.

□ Overall Impression This article reads more like a post-hoc justification of routine surgical practice than a scientific contribution. It presents predictable results, superficial analysis, and underwhelming conclusions while pretending to offer radiological insight.

If this is to guide future practice, it must be said: neurosurgery deserves better. The field needs predictive modeling, personalized imaging analytics, and biological correlates, not retrospective regurgitations of the obvious.

1)

Kuptsov A, Abarca-Olivas J, Monjas-Cánovas I, Argüello-Gordillo T, Picó-Alfonso A, Sánchez-Payá J, Nieto-Navarro JA. Anatomical-Radiological Aspects and Their Influence on the Results of Pituitary Adenomas Endoscopic Endonasal Surgery. J Neurol Surg B Skull Base. 2023 Jun 15;85(5):501-508. doi: 10.1055/a-2095-6442. PMID: 39228890; PMCID: PMC11368454.

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