

Endoscopic Pituitary Surgery: Learning Curve and Nasal Quality of Life

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Abstract : Endonasal endoscopic trans-sphenoidal surgery for pituitary tumours has become a mainstay of treatment over the last two decades. Although it is generally accepted that there is no significant difference between endoscopic versus microscopic approach for surgical outcomes (endocrine and ophthalmologic status), nasal morbidity seems to the benefit of endoscopic procedures. Minimally invasive endoscopic surgery needs an operative learning curve to achieve surgeon's efficiency. This learning curve is now well known for surgical outcomes and complications rate, however, few data are available for nasal morbidity. The aim of our series is to document operative experience and nasal quality of life after (NQOL) endoscopic trans-sphenoidal surgery. The prospective pituitary surgical cohort consisted of 525 consecutives patients referred to our Skull Base Diseases Department. Endoscopic procedures were performed by a single neurosurgeon using an uninostril approach. NQOL was evaluated using the Sino-Nasal Test (SNOT-22), the Anterior Base Nasal Inventory (ASBNI) and the Skull Base Inventory Score (SBIS). Data were collected before surgery during hospital stay and 3 months after the surgery. The seventy first patients were compared to the latest 70 patients. There was no significant difference between comparison score before versus after surgery for SNOT-22, ASBNI and SBIS during the single surgeon's learning curve. Our series demonstrates that in our institution there is no statistically significant learning curve for NQOL after uninostril endoscopic pituitary surgery. A careful progression through sinonasal structures with very limited mucosal incision is associated with minimal morbidity and preserves nasal function. Conservative and minimal invasive approach could be achieved early during learning curve.

Keywords : pituitary surgery, quality of life, minimal invasive surgery, learning curve, pituitary tumours, skull base surgery, endoscopic surgery

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