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## P0574 - THE SURGICAL EXPERIENCE AND LEARNING CURVE FOR ENDOSCOPIC TRANS-SPHENOIDAL RESECTION OF PITUITARY ADENOMAS. A SINGLE, LOW-VOLUME, INSTITUTION EXPERIENCE

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### Resumen

**Objectives:** The objective of this study was to assess whether increasing operative experience results in greater endoscopic trans-sphenoidal resection of pituitary adenomas, lower complications, improved endocrinological and visual outcomes, and a decrease in length of hospital stay.

**Methods:** A retrospective single-institution cohort study was performed. Subjects underwent endoscopic trans-sphenoidal resection of pituitary adenomas. We analyzed 62 endoscopic procedures from January 1, 2012, to November 1, 2017. Following data collection, statistical analysis was performed using Stata Data Analysis and Statistical Software v15. Patients were divided into three groups: group A (n = 21), group B (n = 21) and group C (n = 20) in chronological order. Variables including complication rate, duration of surgery, CSF leak, the extent of resection, postoperative endocrine function and visual outcomes are studied.

**Results:** In total, 62 patients (34 male, 28 female) with a mean age of 54.27 were included. Patients in group A showed a higher duration of surgery with a mean of 234.3 minutes vs 214.8 minutes in group C. A much lower percentage of gross total resections were also noted at the beginning of the learning curve: 61.9% in groups A and B vs 70% in group C. Regarding postoperative visual acuity, improvement was detected in 14.3% of patients from groups A and B and 35% in group C. Overall, CSF leak occurrence was 7.5%.

**Conclusions:** This study demonstrates that in our institution there is a trend towards increasing safe tumor resection with experience. We were able to identify that there may be a learning curve of approximately 20 cases of endoscopic pituitary adenoma surgery before improving the results for a single surgeon in a low-volume center.