

IMPACT OF INTERNATIONAL CONTINUING EDUCATION ON TRANSSPHENOIDAL ENDOSCOPIC SURGERY FOR SELLA TUMORS IN BOLIVIA

High tech surgeries are riching all countries, instruments that allow this advance is the training that they get and the hard worship that the team realize.

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Introduction

Trans-sphenoidal endoscopic surgery (TSES) as an approach for skull base tumors has been widespread in the last 25 years, which is why many international consensuses make TSES as there first choice. We present 248 cases in Santa Cruz Bolivia, from 2015 to 2025. This surgeries has been done for a time that was thought by missionary doctors who come with Solidarity Bridge for many years. The results in Bolivia are compare to the others hospitals around the world

Objective

Describe the TSES done for pituitary tumors in Santa Cruz Bolivia from 2015 to 2025. Showing the ethiology, complications and achievements that result from this interventions.

Methodology

We review the history from all patient that where receive TSES for pituitary tumors from 2015 to 2025 in Santa Cruz Bolivia. The surgeons were the authors. The follow up was at least 1 year and we review aspects like:

- gender distribution
 - visual impairment.
 - turbinate resection
 - Histopathological.
- previously used antidopaminergics
 - Imaging showed
 - CSF leak
 - Complications

Rhinologic outcome of endoscopic transnasal-transsphenoidal pituitarysurgery: an institutional series, systematic review, and meta-analysis.Gstrein NA, Otorhinolaryngol. 2023 Sep;280(9):4091-4099. doi: 10.1007/s00405-023-07934-w. Epub 2023 Mar 29.

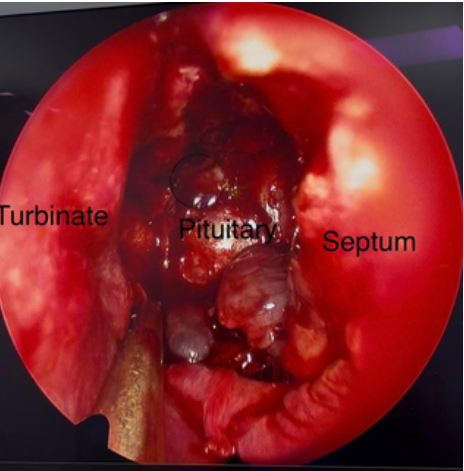
Related literature

Efficacy of different minimally invasive surgical methods for transsphenoidal resection of the pituitary adenoma: A systematic review and meta-analysis.Yao D, Chen S, Wang X.Asian J Surg. 2022 Dec;45(12):2869-2871. doi: 10.1016/j.asjsur.2022.06.073. Epub 2022 Jun 21.PMID: 35739028

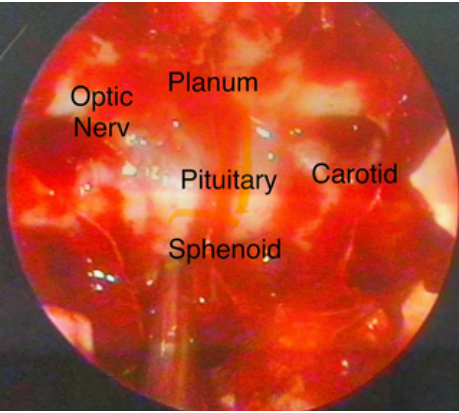
Efficacy of different minimally invasive surgical methods for transsphenoidal resection of the pituitary adenoma: A systematic review and meta-analysis.Yao D, Chen S, Wang X.Asian J Surg. 2022 Dec;45(12):2869-2871. doi: 10.1016/j.asjsur.2022.06.073. Epub 2022 Jun 21.PMID: 35739028

Analysis

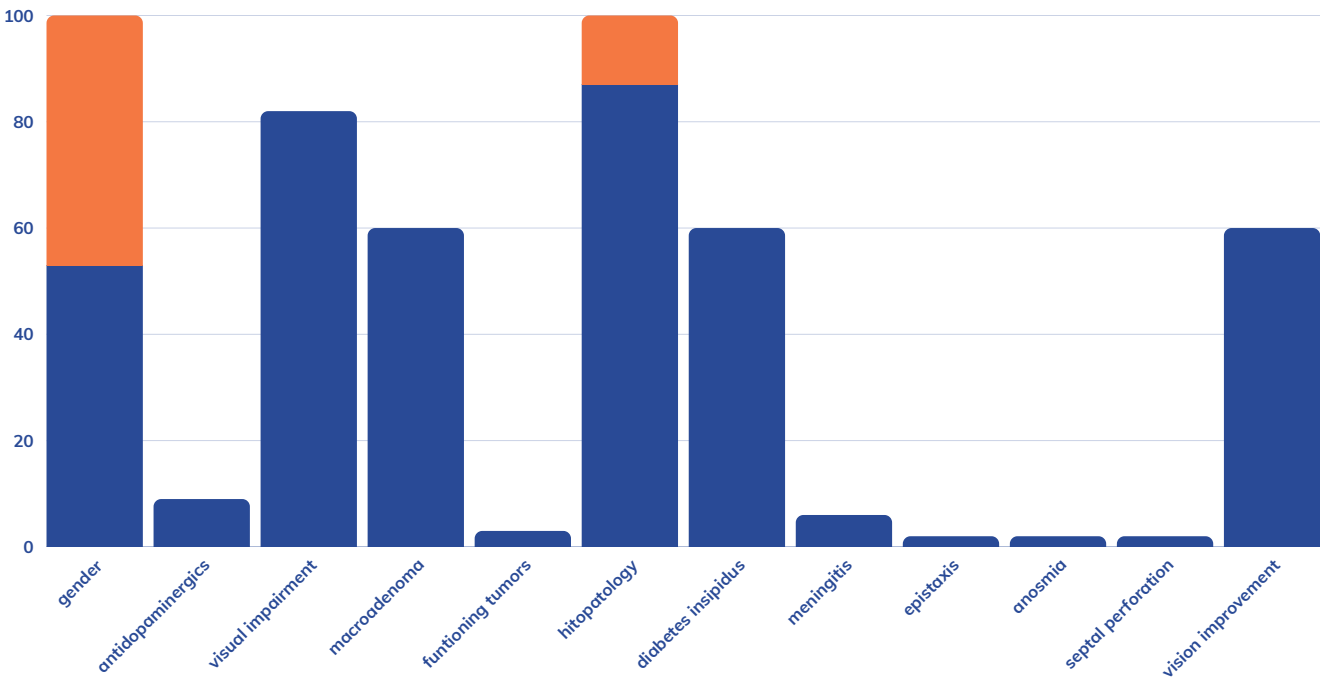
Trans-sphenoidal endoscopic surgery (TSES) in Santa Cruz Bolivia 47% of them male, with an age range of 10 to 69 years. Our patients previously used antidopaminergics in 9%, with the surgical indication being 82% visual impairment. A prior CT scan and MRI scan were performed in all patients, and angiography was performed in 20%. Imaging showed O ROAD TO STELLA (6) highlighting conchal sphenoid 2%, lateral pneumatization 3%, 60% were macroadenomas, 3% were functioning tumors.Histopathological. 87% had adenomas, 13% craniopharyngioma. 87% of our patients had diabetes insipidus; meningitis occurred in 6%, epistaxis in 2%. The average surgical time was 3 hours, and a hospital stay of 5 days. Presenting vision improvement in 60%, anosmia in 2%, massive crusting 3%, septal perforation 2%, synechiae 2%, long-term endocrinological alterations in 1%.



The nasal approach look like this in the end.



The approach technique was monchoanal, without turbinate resection in 80%, posterior resection of the septum and enlargement of the sphenoid ostium with chisel and hammer; complete septoplasty was performed in 15%. In the sphenoid, the sphenoidal and ethmoid septa and the superior turbinate were resected with Kerrison. The posterior wall of the sphenoid was opened with a chisel and hammer after recognition of orbito-carotid angles. The tumor was resected with curettes and aspirations.



Results/ Findings

Our results were comparable with the literature it shows:

- The usefulness of training times abroad and of maintaining continuing education with the tutelage of American teams
- The team work and hard effort can beat the technology

IMPORTANT!

We highlight the material used (especially chisel and hammer instead of milling) that was adjusted to national needs without lowering the quality of the results.

Conclusion

This study presents a 10 years data review in Santa Cruz Bolivia, showing the Skull Base Endoscopic Surgeries done by the authors of this paper. The study group showed aspects similar as the one describe in the bibliography in topics as sexual and age distribution, reason for medical consultation, surgical techniques, findings in pathology of the release tumor, postop complications. The amazing aspect in this work is that the this surgiries where done with low cost avoiding the use of navigation, no milling machine, instead we use chisel and hammer and the team was well trained by overseas doctors in several opportunities. For instance we prove that international help, team work and hard effort can replace expensive technology and help patients with excellence with expending less amount of money