

Endonasal Transphenoidal Approach To Pituitary Adenomas

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Aim:

To describe the technique of endonasal transphenoidal approach for the removal of pituitary adenomas and analyse the surgical results of series of 53 cases

Materials And Methods:

Endoscopic Transphenoidal Approach is a minimally invasive approach. Standard surgical technique includes two phases: nasosphenoidal and sellar. The objective of the nasosphenoidal phase is to create an adequate surgical pathway in the posterior nasal cavity while preserving sinonasal anatomy and function. After introducing the endoscope into the nasal cavity, the head of the middle turbinate is dislocated laterally to widen the space between the turbinate and nasal septum. A wide sphenoidotomy is performed after identifying the sphenoid ostium. During the sellar phase, the sellar floor is removed, the dura mater is opened, and the lesion is removed. Sellar reconstruction is performed with use of autologous or heterologous tissue grafts. From July 2010 to July 2017, we had performed 53 cases of endoscopic skull base surgery, of which CSF leak repair in 11 cases, pituitary adenoma surgery in 41 cases and craniopharyngioma surgery in 1 case. Team consists of Endocrinologist, ENTsurgeon and Neurosurgeon. All the procedures are confined to sella, sphenoid and ethmoid sinuses. No extended skullbase procedure was done.

Results:

Adenoma removal total- 32 cases, subtotal- 9 cases, Craniopharyngioma partial removal- 1. Csf leak repair - no recurrence, Vision improvement seen in 31 patients out of 32 patients with visual deficits with space occupying sellar/suprasellar mass. No Post operative csf leak and Meningitis. Hyponatremia in one patient which was managed with medical treatment.

Conclusion:

Endonasal Transphenoidal approach is the standard procedure for the surgical treatment of Pituitary macroadenomas. Adequate knowledge of the Endoscopic anatomy of the surgical corridor, expertise in handling the Endoscopic equipments, selection of the surgical patients and Team work are essential for the success of this approach.