

ABSTRACT

Topic: A Study Of Pituitary Macroadenoma Transnasal Endoscopic Excision

BACKGROUND: Pituitary macroadenomas are enclosed, invasive or expanding tumours of size >10mm. The role of imaging techniques has implication in surgery based on the tumour size, extent and consistency that determines the ease of resection, cure and occurrence of complication. The transnasal trans-sphenoidal endoscopic approach has recently been applied procedure that is minimally invasive to resect pituitary tumours with minimum morbidity and mortality.

Aim : To Study about the Pituitary Macroadenoma- Transnasal Endoscopic Excision

Objectives :

- 1.To study the modes of presentation of pituitary macroadenoma
- 2.To evaluate radiological study of the tumour by computed tomography (CT) /magnetic resonance imaging (MRI) and its implications in surgical techniques
- 3.To review the surgical techniques in complete excision of the macroadenoma
- 4.To study the per operative and post operative complications and its management

Methods and materials:

The study was conducted in Rajiv Gandhi Government General Hospital and Madras Medical College in the Upgraded Institute Of Oto-Rhino-Laryngology, Chennai from June 2015 to September 2016. The study was a retrospective and prospective study. The study population comprised of patients who were diagnosed to have pituitary macroadenoma. Cases of pituitary macroadenoma attending neurology opd, surgical endocrinology opd and cases referred from these opd's to Upgraded Institute of Otorhinolaryngology, Rajiv Gandhi Government General Hospital were studied. The sample size for this study was 28. CT scan / MRI was done. Institutional Ethical clearance and informed consent was obtained.

Results: Majority of the pituitary macroadenomas were seen in the age group 41-50 year (32.14%) and among females (53.6%). Among the 28 cases, nonsecretory tumours

were 17(60.7%) and secretory were 11(39.3%).The predominant symptoms were headache (71.4%) and visual defects (42.8%). Majority of tumour extension was to the suprasellar region (50%). On MRI based images , consistency of 10 tumours were semisolid of which on peroperative findings 6(60%)were soft and 4(40%) were firm. 92.3% of the tumours having solid consistency on MRI images were firm and the remaining 7.6% were found to be soft on per operative finding. Suprasellar extension on MRI was similar in 12 (85.7%) cases peroperatively. Suprasellar and parasellar extension on MRI were similar only in 5 (71.4%) cases. CSF leak was the only peroperative complication found in 6 cases(21.4%).The most common post operative complication was diabetes insipidus(42.8%) .Peroperative CSF leak repair was done for 6 cases and for 1 case post operative CSF leak repair done and lumbar drain was kept. Post operative diabetes insipidus was treated with intranasal desmopressin in 3 cases.CVA was managed conservatively in 2 cases.

Conclusion : The transsphenoidal endoscopic surgical approach is adequate for total removal of pituitary macroadenoma with cystic and soft consistency. In solid tumours with extensive suprasellar extension and parasellar encasement of carotids,the trans sphenoidal endoscopic approach may not be adequate for complete resection.The incidence of per operative complications like csf leak, haemorrhage and post operative diabetes insipidus is very less if meticulous dissection technique is carried out with tissue respect and minimal injury.