

# Results of Transsphenoidal Surgery in Outcome of Cushing's Disease

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## Introduction

To analyze the therapeutic results of TSS in patients with Cushing's disease and their outcome

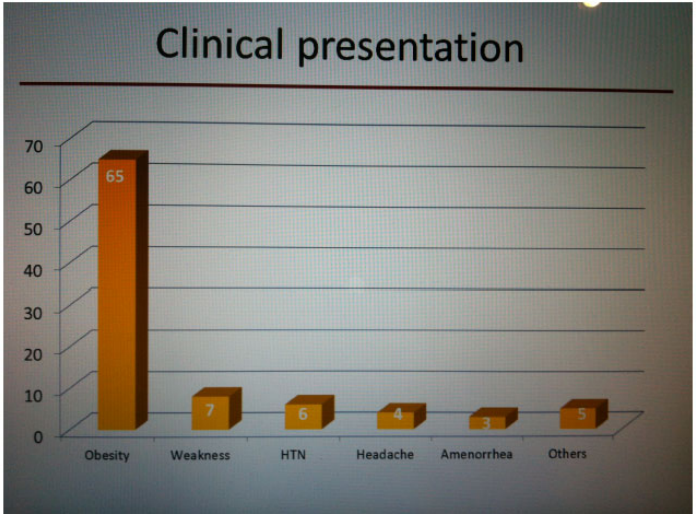
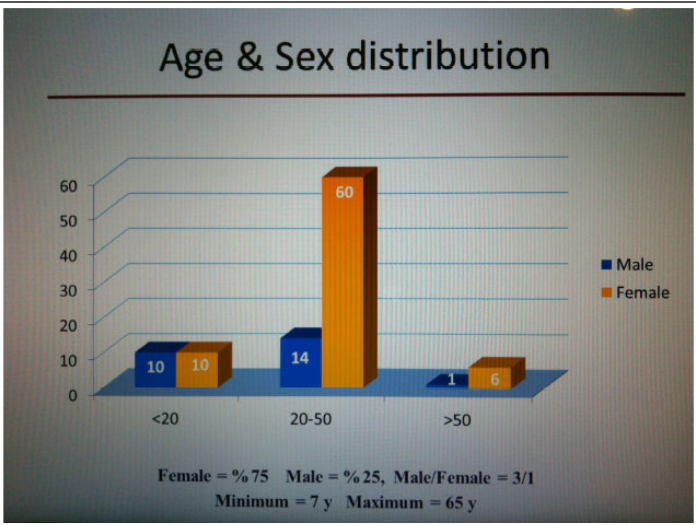
## Methods

**Patient population:** All Patients presenting as ACTH secreting pituitary adenomas, referred for surgery to our tertiary care center and were operated by TSS approach from Mar 1998 to Jan 2011 (13 years) were retrospectively analyzed.

**Surgical technique:** Nose & throat culture and cleansing the day before operation, IV cephalotin 2g at the beginning of anesthesia, supine position and head extension, trans-septal trans-sphenoidal approach under microscopic magnification, removal of anterior wall of sella turcica, cruciate dural opening, adenomectomy in cases with definite microadenoma and total tumor removal in macroadenoma cases, reconstruction of the removed sellar wall with bone, packing of sphenoid sinus with muscle if arachnoid was opened.

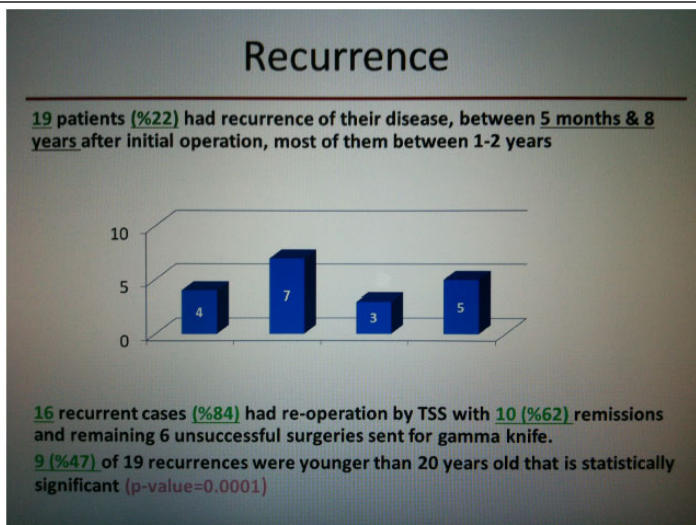
## Results

101 patients were treated by TSS during this period by a single surgeon, 91 of them had good length of follow up (mean  $3 \pm 3.2$  y) ranging from 6 months to 12 years.  
84 (92%) had remission after surgery, 19 (22%) of them developed recurrence of their disease that most of them were children and young adults (10 aged more than 20 years old). Review of postoperative morning serum cortisol in recurrent cases revealed values less than 5 mic/dL in only 5 patients and other 14 (%73) had values more than 5 mic/dL.  
Preoperative tumor size was not a factor in relapse of the disease and only one of 19 cases had macroadenoma in preoperative imaging.



## Complications

- CSF Rhinorrhea: in 7 (%8) cases, 1 followed by bacterial meningitis , 1 needed surgical repacking
- Temporary DI: in 19 (%21) cases
- Mortality: Zero



## Discussion

- Remission rate after TSS has been reported to be between %75-95 and our results is confirmatory to these values
- Recurrences are more common in younger patients specially if longer follow up periods are considered (%22 in our patients)
- Complications usually are controllable and not devastating and death rate is very low

## Conclusions

TSS is the preferred modality of treatment in Cushing's disease but long term follow up is necessary for detection of relapses