

[P2-533] Remission Outcome in 46 Patients Who Underwent Transsphenoidal Surgery for Acromegaly in a Single Center.

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Background: Surgical remission rates varies depending on surgeon experience, tumor size and biochemical criteria. Overall rates have been reported from 52 to 71% of remission after transsphenoidal surgery. **Objective:** assessment of surgical therapy results in 46 acromegalic patients operated on from 1982 to 2006. **Methods:** We retrospectively analyzed 46 acromegalic patients who underwent transsphenoidal surgery, performed by the same surgeon, in our center. The remission criteria was defined as GH nadir levels less than 0,76 ng/dl, measured through chemiluminescence method (Immulite 2000) and a normal sex and age-adjusted IGF-I levels. **Results:** Patients mean age at diagnosis of acromegaly was 46 years, 54% were female; 14 (30%) and 32 (69%) of all patients present with diabetes and hypertension, respectively. Eleven (23%) patients had microadenoma and 35 (77%) had macroadenoma. Extrasellar growth of the tumor occurred in 8 (17%) patients. The median duration of follow up was 5 years (3 months to 24 years). After transsphenoidal surgery 69.6% of the patients achieved a biochemical remission. Remission rate was 100% for patients with microadenoma and 60% for those with macroadenoma. There was no significant difference between GH basal levels before surgery in the remission group comparing to the group not in remission (12.7 ± 16.6 ng/dl; 21.41 ± 16.77 ng/dl; $p = 0.19$). Nadir GH levels in the remission group (0.15 ± 0.11 ng/dl) were significantly lower ($p < 0.0001$) than the non remission ones (3.65 ± 7.39 ng/dl); basal GH levels did not distinguish the 2 groups (1.7 ± 1.8 ; 1.9 ± 5.1 ng/dl; $p = 0.64$). GH levels before and after surgery were not different in macro and microadenomas ($p = 0.086$). IGF-I levels were not significantly lower in the remission group (235.9 ± 129.7 ; 288.9 ± 257.14 ; $p = 0.10$). Hypopituitarism occurred in 33% of patients. There was no serious morbidity or perioperative deaths. **Conclusion:** Surgery management of acromegaly provides prompt normalization of GH levels and provides the best chance for cure in patients with microadenoma. Surgery is also successful in most patients with noninvasive macroadenomas, however, biochemical remission of acromegaly is strongly associated with surgeon experience. Basal GH levels could not define remission in the pos operative period. IGF-I levels were lower in the remission group, although, it was not significantly different. Nadir GH levels seemed to be the best parameter for remission.