

Surgical approach to the cavernous sinus

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Disclosure

Funding for presenter to attend:

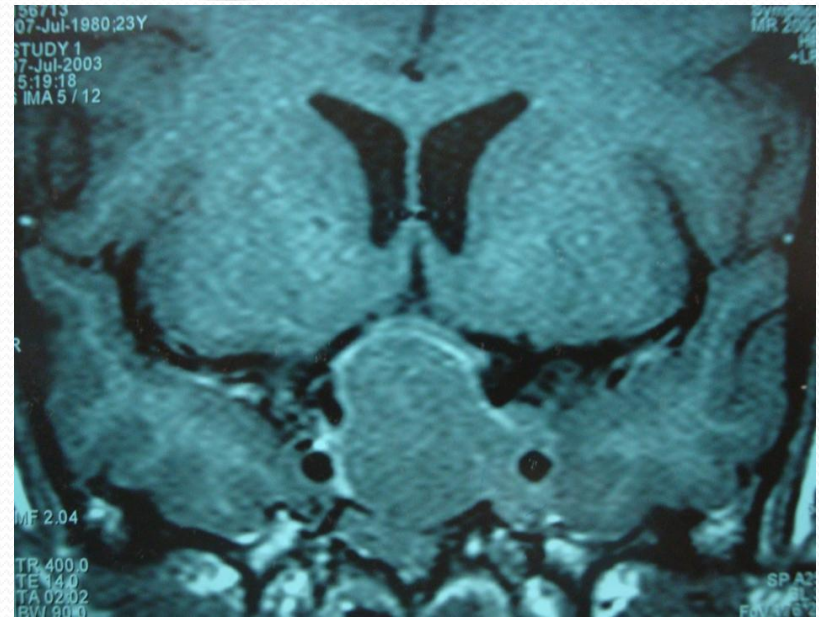
Institution (non-industry) funded

Portuguese Neurosurgical Society

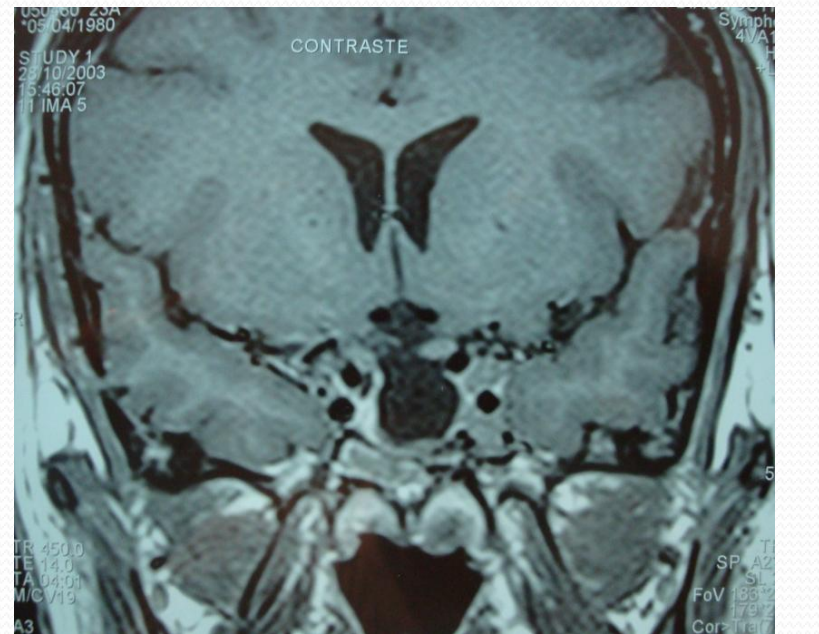
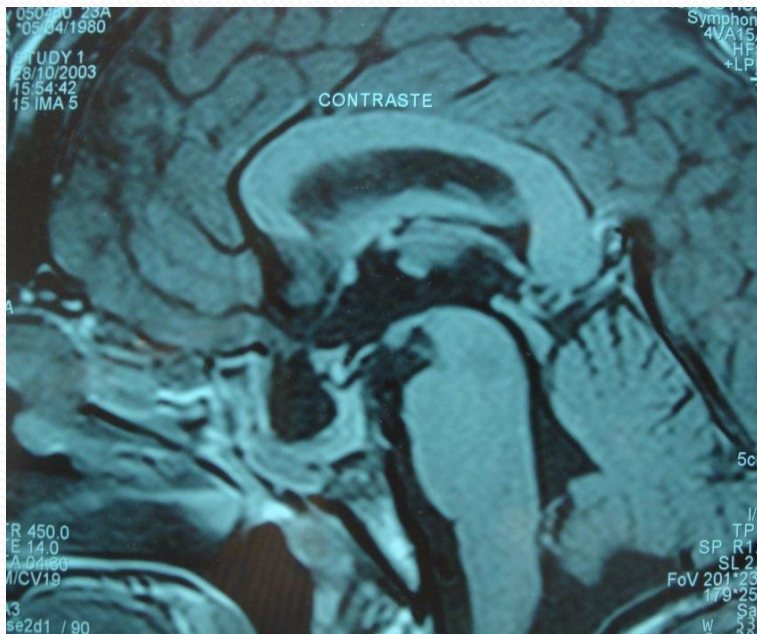
Clinical case (2003)

- Female, 23 y
- Architecture student
- 2003: acromegaly e decreased visual acuity (RE < 1/10 - LE 10/10)

Pre op
2003



Post op
2003



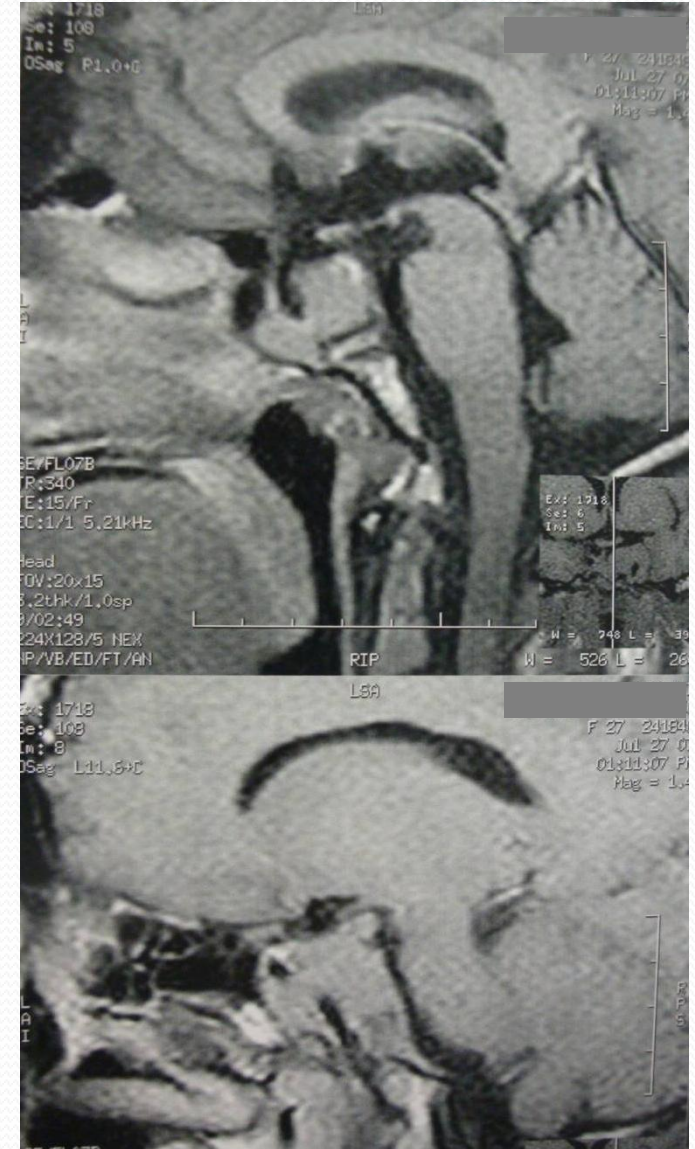
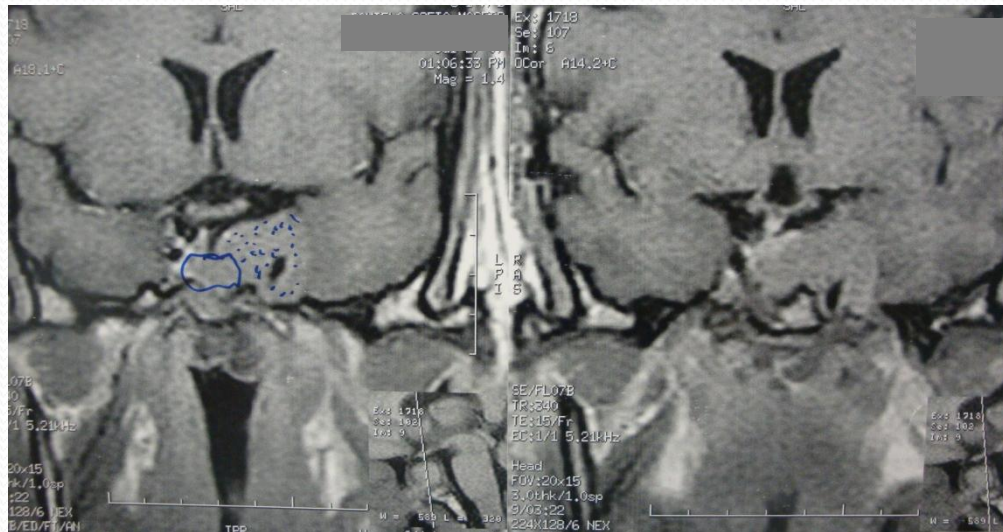
Clinical case (2003)

- Craniotomy (2003), right pterional approach
- Histology: GH secreting macroadenoma
- Post op: octreotide in increasing doses (10mg → 30mg)

	GH
Pre op	77.4 pg/ml
Post op	23.5 pg/ml

Clinical case (2007)

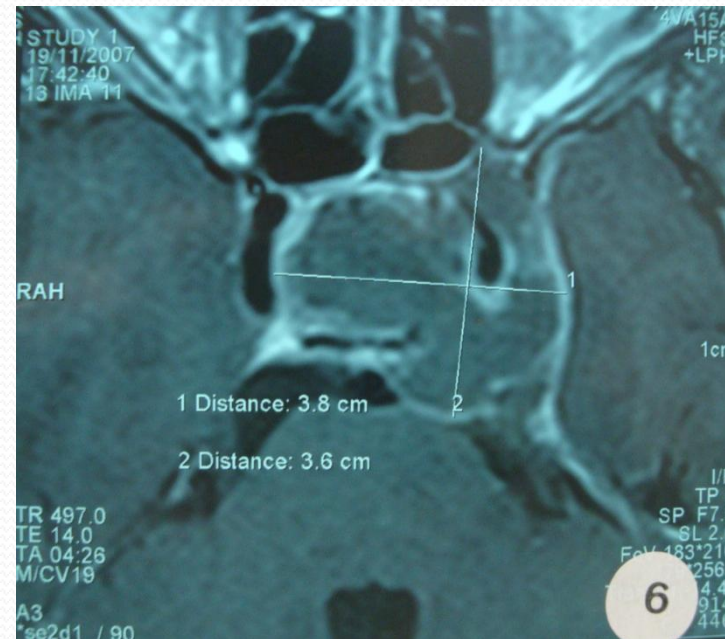
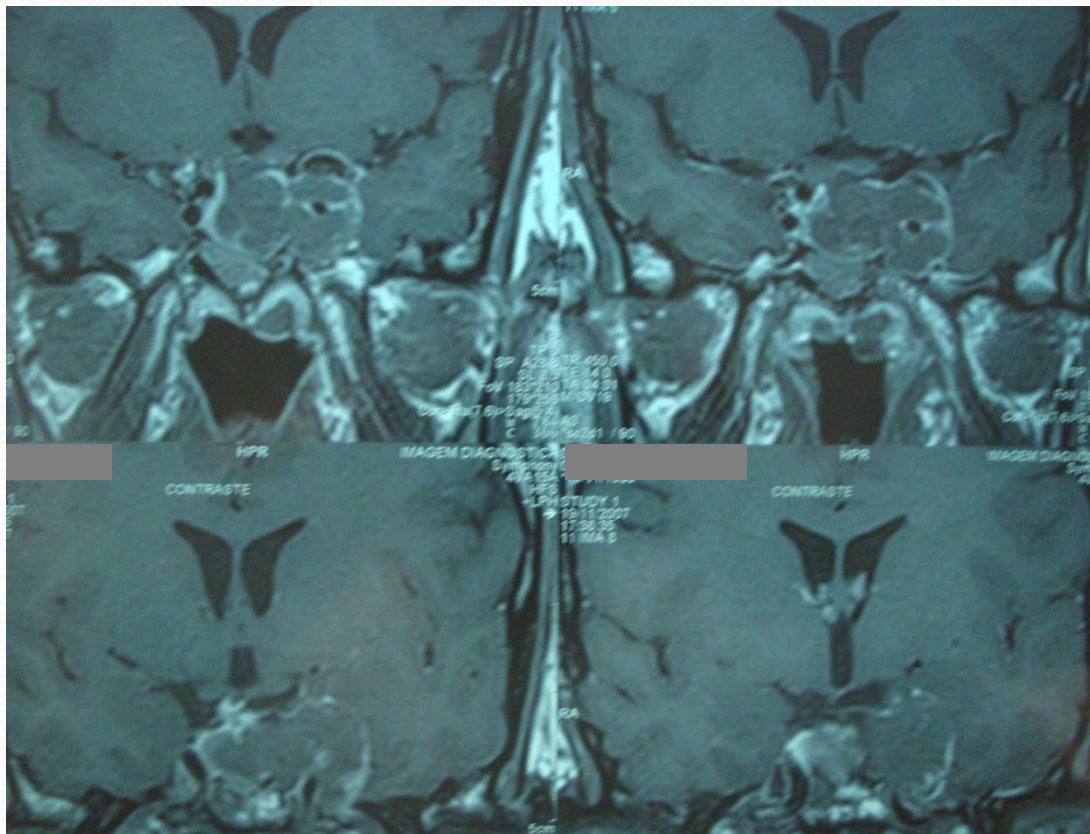
- Architect
- July 2007: tumor recurrence
 - GH 19.2 pg/ml
- FSR Nov/2007 (6 cycles of 5 days)



Clinical case (2007) – post FSR

- December 2007 (2nd week post FSR)
 - left hemicrania headache, diplopia
 - sudden left III CN complete palsy, latter left VI CN palsy

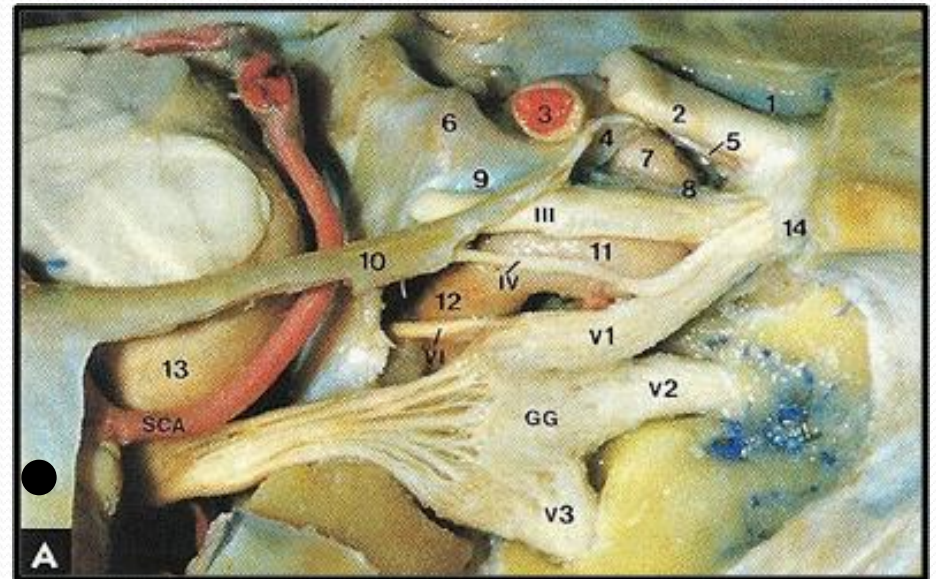
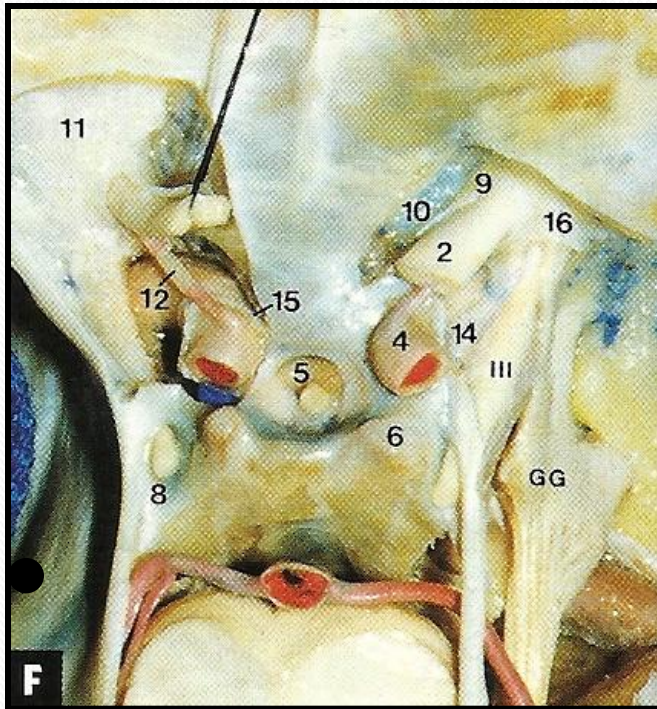
Clinical case (2007) – post FSR



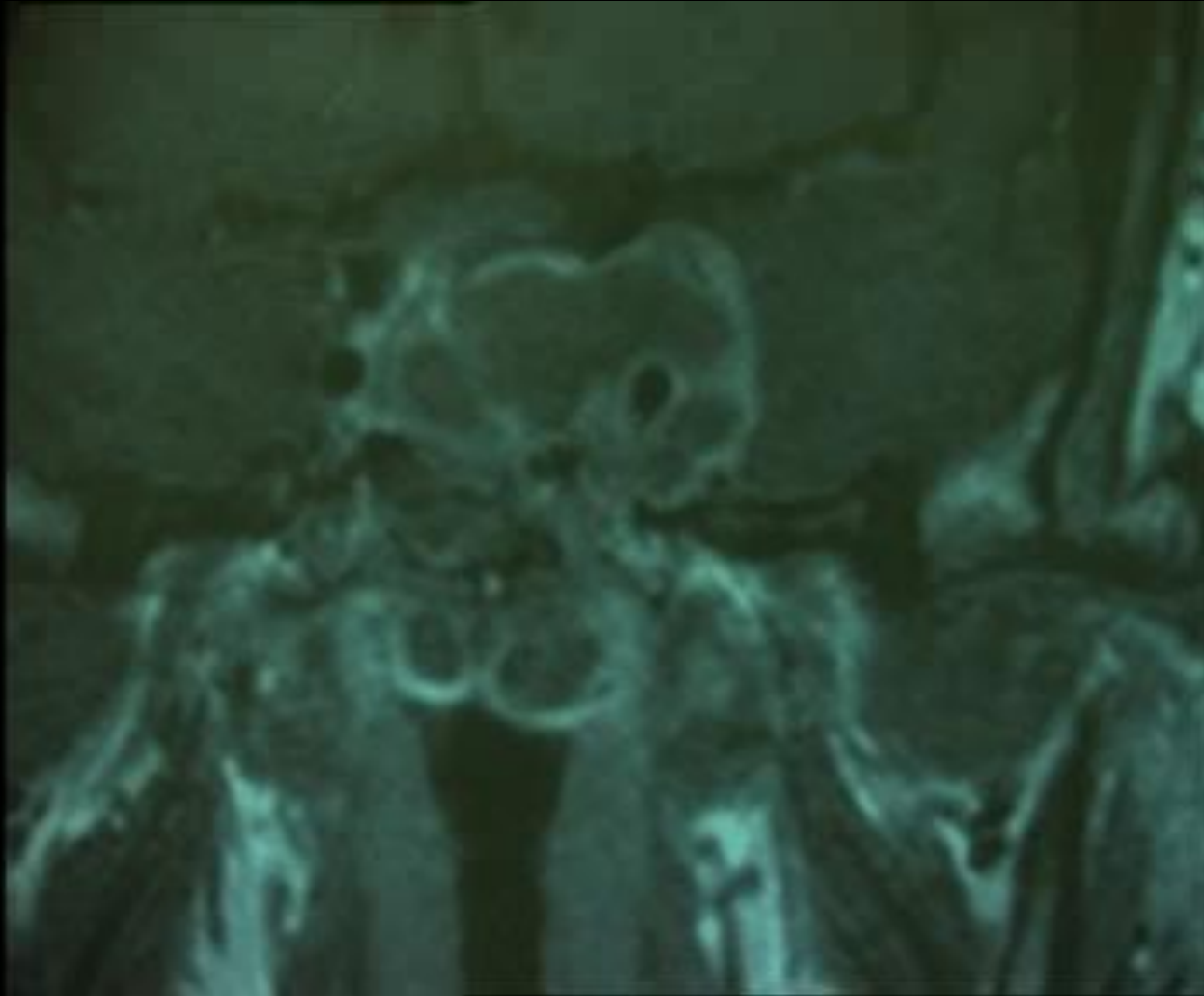
Clinical case (2007) – post FSR

- Surgery (December 2007): left pterional craniotomy, sellar and cavernous sinus approach
- Histology: GH, FSH and LH secreting macroadenoma with partial pituitary apoplexy
- Post-op: FSR (5 weeks)

Anatomy



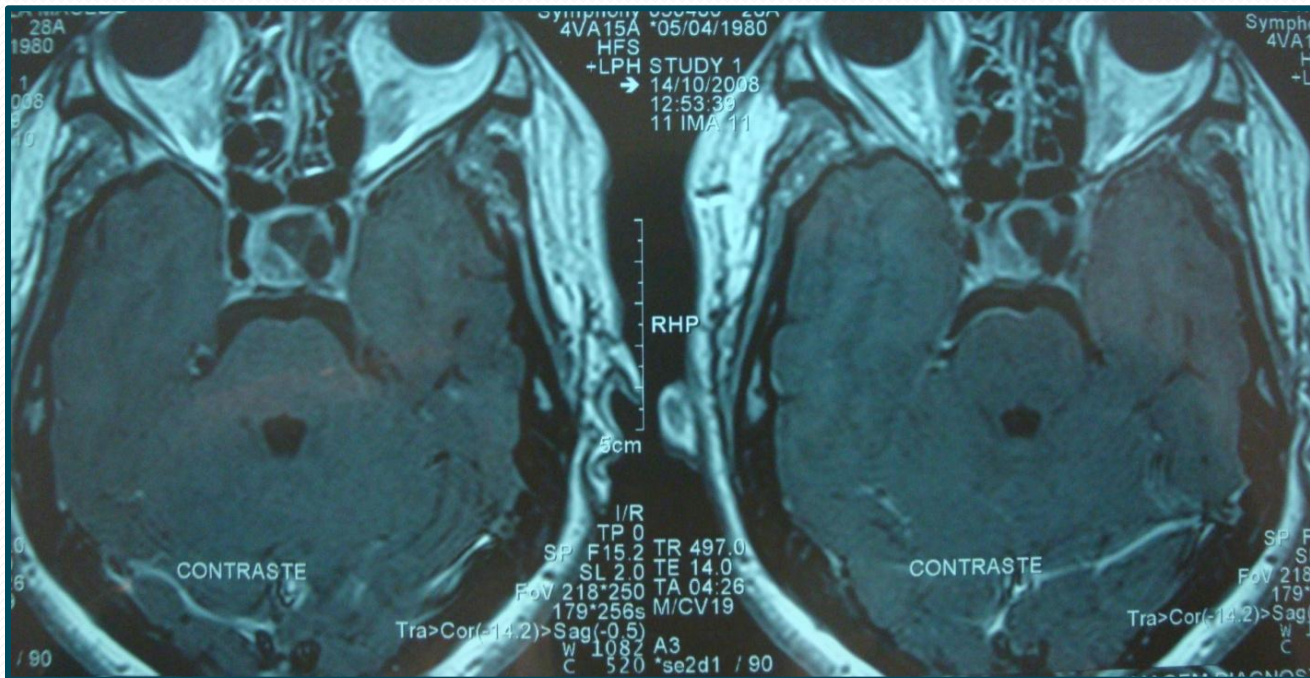
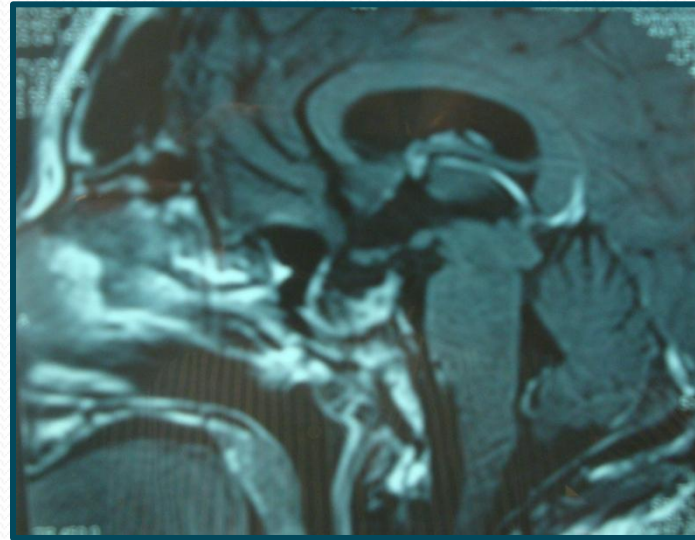
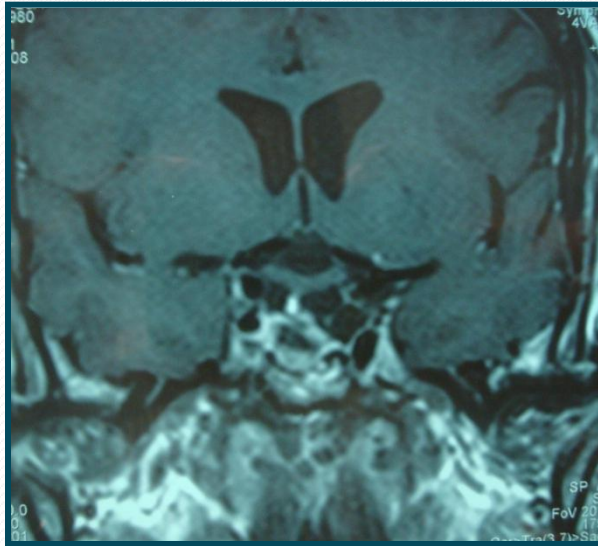
VIDEO



Clinical case

- CN recovery (1st III CN, then VI CN)
- Endocrinologic improvement
 - glucose levels (90-100 mg/dl)
 - GH = 2.53
 - IGF = 214

Clinical case – post op/ post FSR



Conclusions

- Detailed knowledge of the cavernous sinus anatomy
- Experience + anatomy: safe surgery with low morbidity, changing natural history
- Surgical tumor reduction enhances success of subsequent therapy
- Provide a route to basilar tip, carotid-ophthalmic and paraclinoid aneurysms, sellar and clivus tumors