

INFERIOR PETROSAL SINUS SAMPLING IN THE DIFFERENTIAL DIAGNOSIS OF ACTH-DEPENDENT CUSHING'S SYNDROME

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OBJECTIVES

Bilateral sampling of the inferior petrosal sinuses is an accurate test to diagnose Cushing's disease and distinguish it with the ectopic ACTH syndrome.

The aim of the study was to review the petrosal sinus samplings carried out during last 10 years in our hospital.

METHODS

The medical histories of patients admitted for suspected Cushing's disease in the last 10 years (from 2005 till 2015) were reviewed.

There were selected the 18 cases of inferior petrosal sinuses samplings. The studied variables were: sex, age, previous Magnetic Resonance Image (MRI), results of the petrosal sinus sampling, complications, subsequent therapeutic attitude and evolution of the patient after the treatment.

RESULTS

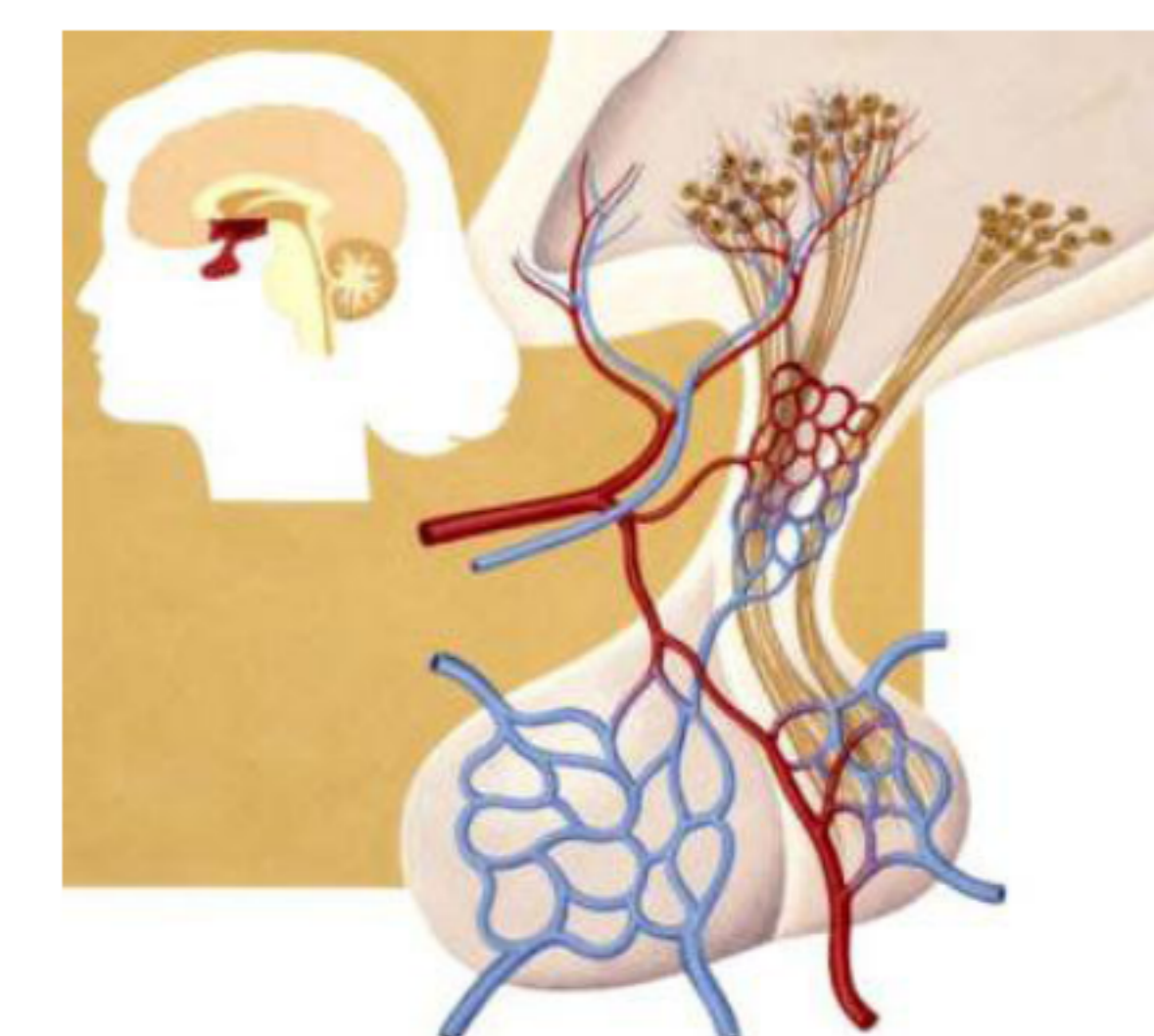
The mean age of the patients was 44.8 years and 83.3% were women. In 62% of patients MRI was normal.

In 61.1% left lateralization occurred, and in 22.2% there was a bad catheterization of the sinus (most often the left).

In 16 cases the pituitary origin was confirmed, in 1 case that source was rejected and in another case the origin is waiting for being determined. In the cases with pituitary origin, neurosurgery was carried out, except in one case in which conservative treatment was preferred.

With regard to the complications, there were two cases of posterior bleeding and one case of binocular diplopia due to a stroke. Petrosal sinus sampling had to be repeated in one case of cyclical Cushing and in another case of recurrence without clear image in the MRI.

There were 2 cases of postoperative recurrence and one case of not recovery after the surgery.



CONCLUSIONS

- Inferior petrosal sinus sampling is a very useful technique in the diagnosis of Cushing's disease, with a low complication rate.
- The most frequent is the left lateralization, and it's more frequent a bad catheterization of the left sinus.

REFERENCES

- Silva JM, Aguilar GB, Conti ML, Santos AR, Lima Junior JV, Veiga JC. Technical and functional aspects of catheterization of inferior petrosal sinuses in ACTH dependent Cushing's syndrome. *Arq Bras Endocrinol Metabol.* 2014 Oct;58(7):758-64
- Belli S, Oneto A, Mendaro E. Bilateral inferior petrosal sinus sampling in the differential diagnosis of ACTH-dependent Cushing's syndrome. *Rev Med Chile.* 2007; 135: 1095-1102

