Inferior Petrosal Sinus Sampling in Adrenocorticotropic-dependent Cushing's Syndrome: Experience of a Tertiary Portuguese Hospital

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Introduction

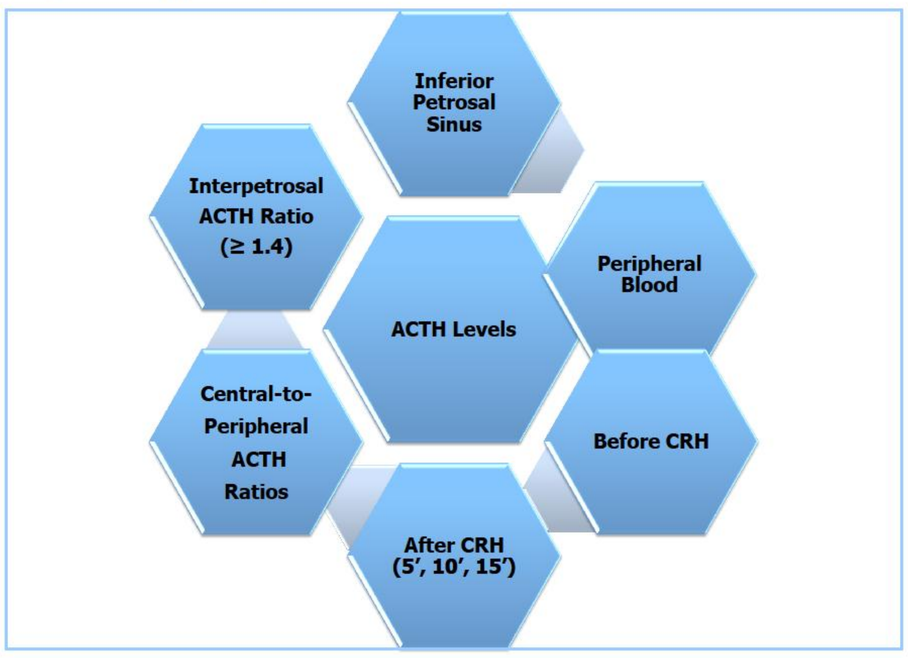
- Cushing's disease is responsible for 80% of endogenous Cushing's syndrome.
- However, distinguishing the cause of ACTH-dependent Cushing's syndrome – Cushing's disease *versus* ectopic Cushing's syndrome – can be extremely difficult.
- Bilateral inferior petrosal sinus sampling has the highest diagnostic accuracy in this evaluation.

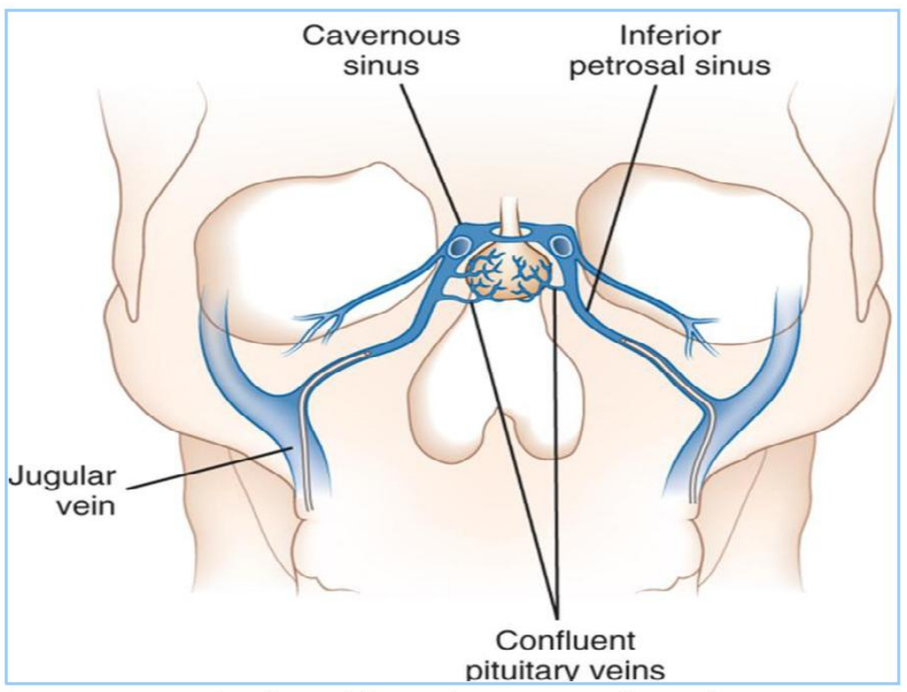
Objective

- Report our experience of the accuracy of bilateral inferior petrosal sinus sampling in:
  - The differential diagnosis of ACTH-dependent Cushing's syndrome;
  - Predicting adenoma lateralization in Cushing's disease.

Design

- Retrospective analysis, 2005-2014, Santa Maria Hospital, 11 consecutive patients

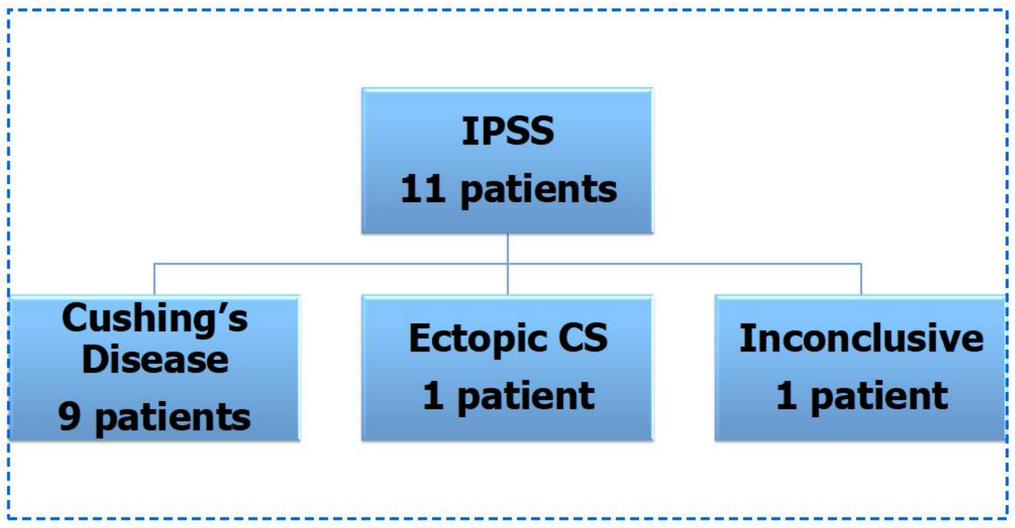




In http://texasradiology.com/neurointerventional/services/

Results

- **Inferior Petrosal Sinus Sampling**
  - Uneventfully performed in all the patients



Cushing's Disease
- Basal central-to-peripheral ACTH ratios diagnostic for CD in 8 patients (>2)
- Post-CRH central-to-peripheral ACTH ratios diagnostic for CD in 9 patients (>3)
- ACTH lateralization in 8 patients

Ectopic ACTH CS
- Negative central-to-peripheral pre- and post-CRH ACTH ratios

- **Transsphenoidal surgery**

Transsphenoidal Surgery

7/9 patients with Cushing's Disease

Histologic examination confirmed the diagnosis of ACTH-secreting pituitary adenoma in all of them

Conclusion

- Inferior petrosal sinus sampling was a safe and well-tolerated procedure in our study group.
- It was effective in the differential diagnosis of ACTH-dependent Cushing's syndrome and useful in planning Cushing's disease surgical therapy.

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