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

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OBJECTIVE

The aim of this study was to assess the diagnostic accuracy of BIPSS with desmopressin stimulation in the differential diagnosis of ACTH-dependent Cushing’s syndrome.

PATIENTS AND METHODS

Retrospective study of patients studied to our hospital for diagnosis of ACTH-dependent Cushing’s syndrome (2000-2015). The histopathological results in patients who underwent a surgical procedure was considered the reference for statistical study of the accuracy of this technique. Statistical analysis: rates of assessment of diagnostic tests and Cohen’s kappa coefficient as a measure of interrater agreement between two observations.

RESULTS

- **BIPSS was performed in 31 patients, of these, 24 patients were operated**
  - **84% of patients with CD had a central positive location in BIPSS** (Sensitivity: 0.84, IC 95%: 0.67-1.00)
  - **100% of patients without CD had a negative BIPSS for the central location** (Specificity: 1.00, IC 95%: 1.00-1.00)
  - **100% of patients with BIPSS positive for central location were diagnosed of CD** (Positive Predictive Value: 1.00, IC 95%: 1.00-1.00)
  - **63% patients with BIPSS negative for central location weren’t diagnosed of CD** (Negative Predictive Value: 0.63, IC 95%: 0.29-0.96)
  - **88% of patients were correctly classified after BIPSS** (Efficiency: 0.88, IC 95%: 0.74-1.00)

Good agreement is observed between the location of pituitary magnetic resonance (MRI) or computed tomography (CT) and BIPSS (K=0.625; p=0.002)

CONCLUSIONS

BIPSS with desmopressin stimulation is useful in the differential diagnosis of ACTH-dependent Cushing’s syndrome, and it shows good agreement with imaging tests used.