Altogether
to Beat
Cushing's
Syndrome

ABC

VIAGGIO ALLA
(RI)SCOPERTA
DELLA SINDROME
DI CUSHING
seconda edizione

Capri \ 15-18 maggio 2013
Certosa di San Giacomo
Hotel della Piccola Marina

SESSIONE 1: IL CUSHING IPOFISARIO
moderatori **Franco Mantero, Francesco Minuto**

IL RUOLO ATTUALE DEL CATETERISMO SELETTIVO DEI SENI PETROSI

MONICA DE LEO

The Role of Bilateral Inferior Petrosal Sinus Sampling in the Diagnosis of Cushing's Syndrome

Andrea Utz
Beverly M.K. Biller

Arq Bras Endocrinol Metab 2007;51/8

Table 1. Biochemical testing in the differential diagnosis of ACTH-dependent Cushing's syndrome.

High dose two-day dexamethasone suppression test (HDDST)
Eight milligram overnight dexamethasone suppression
Metyrapone stimulation
Peripheral CRH stimulation
Desmopressin stimulation
Bilateral inferior petrosal sinus sampling (BIPSS) with CRH stimulation

AGENDA

- QUANDO ESEGUIRE IL BIPSS

- QUALI SONO I RISCHI DELLA PROCEDURA

- QUALI I VANTAGGI SULL' APPROCCIO E L'OUTCOME CHIRURGICO

Diagnosis and Complications of Cushing's Syndrome: A Consensus Statement

G. ARNALDI, A. ANGELI, A. B. ATKINSON, X. BERTAGNA, F. CAVAGNINI, G. P. CHROUSOS, G. A. FAVA, J. W. FINDLING, R. C. GAILLARD, A. B. GROSSMAN, B. KOLA, A. LACROIX, T. MANCINI, F. MANTERO, J. NEWELL-PRICE, L. K. NIEMAN, N. SONINO, M. L. VANCE, A. GIUSTINA, AND M. BOSCARO

J Clin Endocrinol Metab, December 2003, 88(12):5593–5602

Bilateral inferior petrosal sinus sampling (BIPSS). BIPSS for ACTH determination should be recommended in patients with ACTH-dependent CS whose clinical, biochemical, or radiological studies are discordant or equivoca

Approach to the Patient with Possible Cushing's Syndrome

Marco Boscaro and Giorgio Arnaldi
Division of Endocrinology, Polytechnic University of Marche, 60126 Ancona, Italy

J Clin Endocrinol Metab 94: 3121–3131, 2009

Moreover, in our opinion, BIPSS should also be performed in all patients with negative MRI.

The Investigation of Cushing Syndrome: Essentials in Optimizing Appropriate Diagnosis and Management

Ann Saudi Med 2012 September-October

Agata Juszczak, Ashley Grossman

Bilateral inferior petrosal sinus sampling (BIPSS) remains the gold standard diagnostic test for CD, and except for patients with pituitary macroadenoma we recommend its use in all patients with ACTH-dependent CS.

COSA FARE?

1. Test ormonali concordanti per CD e RM positiva per microadenoma (<6 mm)

2. Test ormonali concordanti per CD, clinica suggestiva di CS, RM positiva per microadenoma

3. Test ormonali concordanti per CD e RM negativa

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BEVERLY M.K. BILLER

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BIPSS RISKS

Complicanze comuni

Ematoma
Infezioni
Cefalea, otalgia, acufeni
Trombocitopenia eparino indotta

Complicanze rare

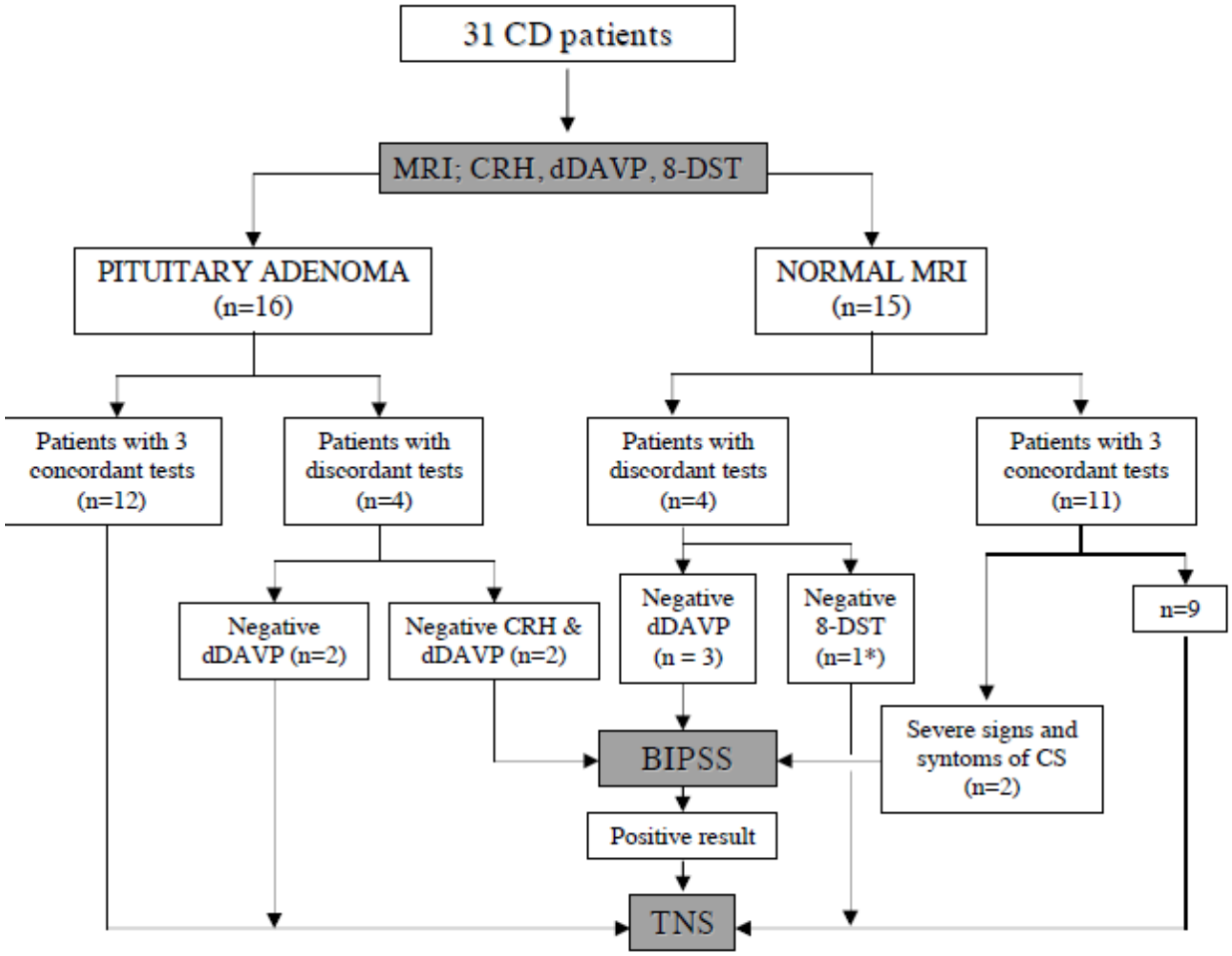
Eventi tromboembolici
Emorragia pontocerebellare
Paralisi del VI nervo cranico
Idrocefalo

The usefulness of combined biochemical tests in the diagnosis of Cushing's disease with negative pituitary magnetic resonance imaging

R M Testa, N Albiger, G Occhi, F Sanguin, M Scanarini[1], S Berlucchi[1], M P Gardiman[2], C Carollo[3], F Mantero and C Scaroni

Endocrinology Unit, [1]Neurosurgery Unit, [2]Anatomopathology Unit and [3]Neuroradiology Unit, Department of Medical and Surgical Sciences, University of Padua, Via Ospedale 105, 35100 Padova, Italy

European Journal of Endocrinology (2007) **156** 241–248

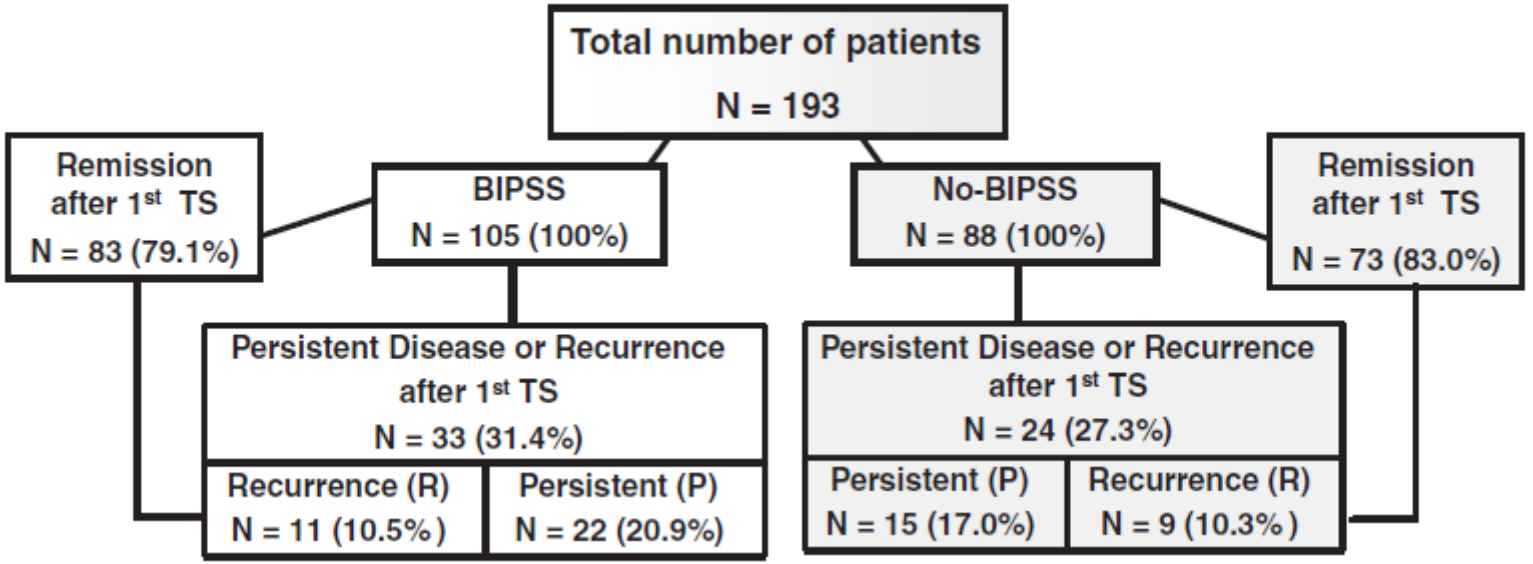


Selective Use of Bilateral Inferior Petrosal Sinus Sampling in Patients with Adrenocorticotropin-Dependent Cushing's Syndrome Prior to Transsphenoidal Surgery

Sigrid Jehle, Jane E. Walsh, Pamela U. Freda, and Kalmon D. Post

Department of Neurosurgery (S.J., J.E.W., K.D.P.), Mount Sinai School of Medicine, New York, New York 10029; and Department of Medicine (S.J., P.U.F.), Columbia College of Physicians and Surgeons, New York, New York 10032

J Clin Endocrinol Metab 93: 4624–4632, 2008



The lateralization accuracy of inferior petrosal sinus sampling in 501 patients with Cushing's disease

[1,2]Joshua J. Wind, MD, [1]Russell R. Lonser, MD, [3]Lynnette K. Nieman, MD, [1]Hetty L. DeVroom, RN, [4]Richard Chang, MD, [1,5]Edward H. Oldfield, MD

J Clin Endocrinol Metab
Accepted March 29, 2013.

Table 2. IPSS* variables associated with accurate lateralization prediction

Variable	PPV ♦	PPV ♦	Univariate p-value
	when present	when absent	
Symmetric inferior petrosal sinuses and optimal catheter placement	67%	47%	0.2
Left-sided lateralization ratio	76%	64%	**0.008**
Variable	Median (IQR●) when correct	Median (IQR●) when incorrect	
Peak interpetrosal gradient ratio	11.2 (24.1)	7.7 (15.3)	**0.0035**
Peak ACTH° concentration	2450 (5320)	2060 (3440)	0.4

PPV: 69%

CONCLUSIONI

Il cateterismo selettivo dei seni petrosi rimane il gold-standard nella diagnostica differenziale della sindrome di Cushing ACTH-dipendente, dimostrandosi più accurato di altre procedure diagnostiche.

Si tratta, tuttavia, di una procedura invasiva e non scevra di rischi che non può essere raccomandata in tutti i pazienti con SC.

La sensibilità della metodica è strettamente dipendente dall'abilità dell'operatore e deve essere praticata esclusivamente presso quelle strutture con un'esperienza consolidata.

L'assenza di un gradiente IPS:P non esclude la presenza di un adenoma ipofisario che rimane sempre la causa più frequente di ipercortisolismo.