

Abstracts of Free Papers

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The use of Inferior Petrosal Sinus Sampling (IPSS) without CRH stimulation in the Diagnostic Evaluation of ACTH dependent Cushing Syndrome (CS): Sri Lankan Experience

Shyaminda Kahandawa¹, Noel Somasundaram², Nihal Wijewardana³, Aruna Pallewatta¹, Aravindan Mahalingam¹, Muditha Werrakkody¹

¹Senior Registrar (Endocrinology), Diabetes and Endocrine Unit,

²Consultant Endocrinologist, Diabetes and Endocrine Unit,

³Consultant Radiologist, Department of Radiology, National Hospital of Sri Lanka, Colombo.

Background

Differentiation between Cushing disease (CD) and ectopic ACTH syndrome (EAS) is challenging due to overlapping biochemical features and poor sensitivity of pituitary MRI in the detection of CD. IPSS with CRH stimulation is the gold standard method to evaluate ACTH dependent CS. In centres with suitable expertise, it has a sensitivity of 97% and specificity of 100% for diagnosing CD (1). However, CRH is expensive and therefore it is not used in South Asian region.

Objective

To assess the efficacy of IPSS without CRH stimulation in the evaluation of ACTH dependent CS.

Methods

This study was a retrospective analytical study conducted at the National Hospital of Sri Lanka. IPSS (with measurement of basal state ACTH gradient) was performed in ten patients with biochemically proven ACTH

dependent CS. These patients had either normal pituitary or pituitary microadenoma less than 6 mm in size. The efficacy of IPSS was assessed by comparing catheter study results with histopathological diagnosis which included nine cases of CD and one case of EAS. A basal state inferior petrosal sinus: Peripheral vein (IPS:PV) ACTH gradient of at least 2 was considered diagnostic of CD.

Results

The results of IPSS are shown in Table 1. A basal state IPS:PV ACTH gradient of at least 2 was observed in eight out of nine patients with histologically proven CD (sensitivity 88.8%). Average basal state ACTH gradient was 6.43 (range 1.20 - 19.53). IPSS without CRH stimulation could correctly exclude pituitary source of ACTH secretion in the patient with EAS (Basal IPS:PV ACTH gradient <2). Neurological complications were not observed during or after the procedure.

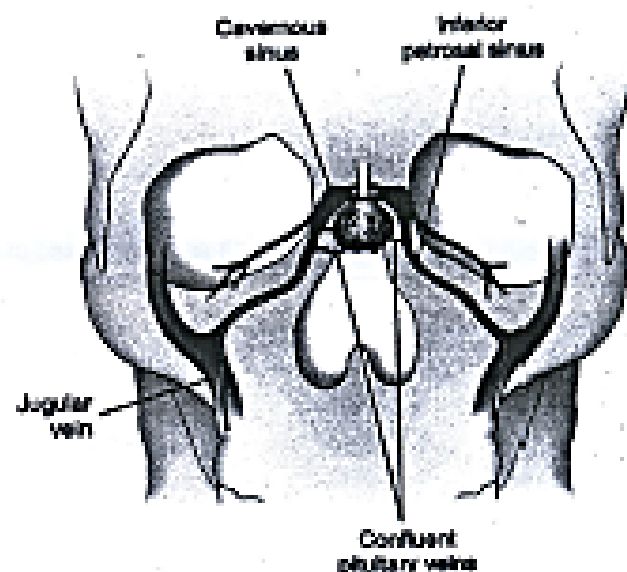


Figure 1. Anatomy of the venous drainage of the pituitary gland (2).

FBS and HbA1c were 134.55 mg/dL (+50.19) and 7.82% (+1.71) respectively. Prevalence of hypoglycaemia was 26.1% (mild 20.7%, moderate 3.9%, severe 1.5%). Sudden change in the diet (quantity, composition or timing) was noticed in 46.7%, increased medicine dosage in 16.9% and unaccustomed exercise in 15.7% were the commonest causes. A cause was not recognized in 16.3%. In this study, 16.9% of patients recognized non prescribed native food as the probable cause for hypoglycaemic episode (Theba 52.3%, Karawila 54.5%, Kothalahimbuta 11.4%, Madetiya kola 4.5%, Kowakka 6.8%).

Conclusions

Hypoglycaemia is common among diabetic patients. Patients need advice to maintain a regular routine of diet and exercise. Consumption of non-prescribed native food should be specifically looked into as a probable cause for hypoglycaemia.

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A study to compare the effects of a new generic product of methimazole with carbimazole on biochemical parameters in Graves' hyperthyroidism

A.D.A. Fernando, P. Karalanda, R. Fernando-pulle, K. Lankathilake, T.A.D. Tilakaratne, G.S.P. Koerthisena, H.A. Disnayake, J.H. Liyanage, I. Piyandigama

Faculty of Medicine, University of Colombo

Objectives

Carbimazole (CBZ) and methimazole (MTZ) are proven to be effective in achieving euthyroidism in patients with Graves' hyperthyroidism. The aim of this prospective randomized clinical trial was to establish non-inferiority of the biochemical and clinical effects of a locally manufactured methimazole which was introduced to Sri Lanka recently, in comparison to carbimazole. Preliminary data are presented in this on-going study.

Methods

Patients (n=15) who were clinically and biochemically diagnosed with Graves' hyperthyroidism were randomized to receive MTZ (n=6) and CBZ(n=9). Biochemical and clinical parameters were monitored at 0,4,8 and 12 weeks. Drug doses were titrated according to a standard protocol. Results were analyzed using independent sample t-test using SPSS version 16.0.

Results

There was no statistically significant difference in mean baseline FT4 levels between MTZ and CBZ groups ($p>0.05$). In both groups, there was a significant reduction in mean FT4 levels at 04 weeks and at 12 weeks compared to the baseline FT4 levels ($p<0.01$). At 04 weeks and 12 weeks of treatment, mean reductions of FT4 levels in MTZ group were 2.05 ng/dL (± 0.734) and 3.177ng/dL (± 0.58) vs 2.155ng/dL (± 1.19) and 2.59ng/dL (± 0.837) in the CBZ group at corresponding time points respectively. There was no statistically significant difference in the two groups at 04 and 12 weeks ($p=0.399$ and $p=0.137$ respectively). Adverse drug events were not reported in either group.

Conclusions

MTZ and CBZ are both effective and MTZ is non-inferior to CBZ in reducing the hyperthyroxinaemia in patients with Graves' disease.

Abbreviations - FT4- free T4, FT3- free T3, TSH- Thyroid stimulating hormone.

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Body fat and visceral fat percentages as predictors of cardiovascular risk and obesity

T.W.N. Karunasena¹, M.P.P.U. Chubbiri², U. Balagahapitaya³, L.M.P. Fernando⁴

¹Senior Registrar in Endocrinology, National Hospital of Sri Lanka

²Registrar in Community Medicine, National Dengue Control Unit, Colombo

³Consultant Endocrinologist, Colombo South Teaching Hospital

⁴Research Coordinator, Endocrine Unit, Colombo South Teaching Hospital

Objectives

To stratify the cardiovascular risk and study the relationship with body fat percentages, and to study the relationship between body mass index (BMI) waist circumference (WC), body fat percentage and visceral fat percentage among health staff.