viously shown that a single 8 am GH value strongly correlates with 24-h GH mean in acromegaly despite GH pulsatility when a group analysis is performed, although there is a major spread of the data in individual patients. The existence and the magnitude of such a variability in healthy humans is unknown. We analyzed 24-h GH profiles of 103 normal subjects who participated in multiple research protocols at the University of Michigan Medical Center over the years. Blood samples for plasma GH measurements were drawn for 24h every 10 (Q10) min in 72 profiles or every 20 (Q20) min in 31 profiles. The 24h mean plasma GH concentrations were calculated from all samples taken during the 24h period. Plasma GH was measured by a chemiluminescent assay (Nichols, San Juan Capristano, CA) with assay sensitivity of 0.01 µg/l. Analyses were performed by Graphpad Prism 6 (San Diego, CA). Spearman´s correlation test (r) was used to compare 24h GH means to 8h single values, and 2h, 5h, and 9h mean of hourly GH plasma concentrations, to imitate clinically used sampling paradigms. We also performed a Bland-Altman analysis to quantify agreements between the standard 24h means derived from Q20 or Q10-min samples and tested sampling paradigm. $P < 0.05$ was taken as significant. The Q10 min GH correlated well with Q20 min sampling ($r = 0.9988$, $P < 0.0001$). However, when the four abbreviated schedules were considered, the correlation with 24h GH means turned progressively weaker in parallel with the decrease in the number of samples taken: there was a progressively lower.

PO 051 SUCCESSFUL PREGNANCY IN CUSHING DISEASE ON KETOCONAZOLE TREATMENT

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Ketoconazole (Ktc) has been successfully used as an adjuvant Cushing's syndrome treatment. However, it is not recommended in pregnancy because of its teratogenic potential mainly because of its antiandrogen effects, which could interfere with the development of the external genitalia of female fetuses. In this paper we report a case of a Cushing's disease patient who became pregnant under Ktc therapy. **Case report:** A 34-year-old woman with CD was attended in a tertiary center of Endocrinology in Brazil. She had undergone two unsuccessful pituitary transsphenoidal surgeries and external radiotherapy at the same year of the surgeries. To control CD activity, Ktc was started soon after surgery (200-400 mg/day) and maintained for eight years when struck in proper control of the disease and was stopped. After six months of drug withdrawal the patient started with high blood pressure (190/110 mmHg), weight gain and cortisol 1 mg overnight of 17 µg/dl. Ktc was reintroduced (200 mg twice/day) and antihypertensive agents were initiated. Seven months under Ktc there was hypercortisolism control. Ten months after Ktc reintroduction, the pregnancy was diagnosed and the antihypertensive drugs were replaced by methyldopa and acetylsalicylic acid 100 mg/day was initiated. At seven weeks of gestation Ktc had been suspended. At 16 weeks of gestation the urinary free cortisoluria 24 hours (UFC) was 299 µg/24h and 456 µg/24h (37-136 µg/24h). At that moment Ktc (400 mg/day) was restarted, considering that at 16 weeks of gestational age the risk of hypercortisolism was larger than the use of Ktc. After one week under Ktc, the UFC was 181 µg/24h. Gestational *diabetes mellitus* was diagnosed and controlled with diet. At 20 weeks of gestational age the fetal ultrasound showed adequate fetal growth. At 31 weeks of gestation a premature labor was suspected. The patient was admitted and received the first dose of dexamethasone for fetal maturation. Ktc was suspended for a month, and then again reintroduced and maintained out of the labor. Vaginal delivery at 36 weeks of gestation of female newborn, weighing 2770g, 48 cm in length, no congenital abnormalities, and normal female genitalia. Patient could not breastfeed. Diabetes was resolved. She remained without Ktc for five months after delivery, then it was restarted (200 mg twice/day) by increased levels of UFC. After two months under Ktc, the UFC normalized. The case progressed satisfactorily, with adequate hypercortisolism and metabolic control. This report shows that Ktc can be a safe alternative in cases of pregnancy on CD, since a close medical follow-up be done.

PO 052 *DIABETES INSIPIDUS* DUE TO PROBABLE HYPOPHYSITIS – A CASE REPORT

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Introduction: Hypophysitis was described in 1908 and it is a rare disease with an estimated incidence 1:9.000.000 people/year. The histological classification is divided into lymphocytic granulomatous and xanthomatous. Granulomatous hypophysitis can be primary or secondary to a systemic disease (*e.g.*, tuberculosis, sarcoidosis, syphilis, pituitary adenoma, histiocytosis). The most frequent symptoms are headache, visual field changes, polyuria, polydipsia and cranial nerve palsies. Definitive diagnosis is invasive and there is no specific treatment. **Objective:** A case report of investigation of *diabetes insipidus* from a tertiary care (Hospital de Clínicas – Unicamp). **Case Description:** A 19-year-old male was referred for investigation of polydipsia and polyuria. He complained of bitemporal headache without visual disturbance for about one year. The polyuria and polydipsia were well tolerated by the exponential increase in fluid intake (cold water). He was diagnosed as having idiopathic thrombocytopenic purpura with a transient response to corticosteroid therapy with current indication for splenectomy. He has no other comorbidities. Serum electrolytes within normal limits. TSH: 3.19 (0.50 to 5.0), FT4: 1.60 (0.7-1.8); ACTH: 44.1 (5-46); cortisol: 23.5 (4-22); prolactin: 6.7 (2.1 to 17.7); FSH: 0.4 (1.4 to 18.1); LH: 1.3 (1.5 to 9.3); HGH: 0,64 (<3), IGF-1: 184.7 (147-404). Magnetic resonance image of the sella: slight thickening of pituitary stalk lesion suggesting granulomatous inflammatory nature and neurohypophysis unidentified. A water deprivation test confirmed central *diabetes insipidus.* Thus, the primary diagnosis is *diabetes insipidus* due to hypophysitis because of exclusion of other causes corroborated by negative investigate other etiologies – mainly infectious diseases, existence of concomitant autoimmune disease and suggestive MRI image. He is asymptomatic with daily dose of desmopressin. **Conclusion:** It is believed that a portion of cryptogenic panhypopituitarism and/or *diabetes insipidus* central diagnoses is due to hypophysitis. Although no histological diagnostic we consider the presentation of this case due to the scarcity of literature on this topic.

PO 053 *DIABETES INSIPIDUS* AND HIPOPITUITARISM ASSOCIATED WITH SUPRASELLAR TUMOR: DRAMATIC RESPONSE TO RADIOTHERAPY SUGGEST GERM CELLS TUMOR (GCT)

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Introduction: Primary intracranial GCT is a rare central nervous system tumor (< 2% brain tumors), that typically arises in midline structures (pineal and neurohypophyseal region) of adolescents or young adults. These tumors are highly radiosensitive and have an excellent prognosis with overall survival of 90% at 10 years. Here we present a case of young man with *diabetes insipidus* (DI) and hypopituitarism associated to suprasellar tumor treated only by radiotherapy (RT). **Case report:** A 18-year-old male patient presented polyuria, polydipsia and fatigue associated with pulsatile headache without visual disturbance. Physical and neurological examination revealed no abnormality, except the testes (12 cm^3). The bone age was in the chronological age. Biochemical evaluation was normal except hypernatremia (Na = 148

mEq/l; NR: 136-145). Hormonal evaluation showed hypogonadotropic hypogonadism (LH < 0.1 mIU/ml, NR1,5-9,3; FSH 0.36 mIU/ml, NR:1,4-18,1; total testosterone 0.13 ng/ml, NR:2,41-8,27), hyperprolactinemia (81.6 ng/ml N:2,1-17,7), low IGF-1 (90 ng/ml NR:197-956). Cortisol and free thyroxine was normal. Central DI was diagnosed based on clinical presentation and response to desmopressin. Magnetic resonance imaging (MRI) showed diffuse thickening of the pituitary stalk (4 mm) and a lesion of 1.2 x 1.2 cm involving the infundibulum, mammillary bodies, hypothalamus and third ventricle floor with isosignal in T1 and isosignal to the cerebral cortex in T2. Additional biochemical evaluation showed normal serum calcium, phosphorus and hypercalciuria (403 mg/24h; 6,2 mg/kg/24h), and undetectable PTH (< 2.5 pg/ml). Granulomatous disease was suggest, but the serum 1,25-dihydroxycholecalciferol was normal (29 pg/ml; NR = 18-78) and 25-hydroxycholecalciferol was 20.4 ng/ml (NR > 30 ng/ml). Spinal angiotensin-converting enzyme (ACE) and PPD test excluded sarcoidosis and tuberculosis. Skeletal X-rays and cintigraphy rule out histiocytosis. Additional exams were normal (chest and abdomen CT, galium cintigraphy, rheumatologic and infections serology proofs). Serum and spinal cerebral fluid (CSF) tumor markers (alpha-fetoprotein and β-HCG) were negative. Excluded other causes, the MRI images was suggestive of GCT. So, due to the difficulty to access and, in generally, the excellent response to RT, we decided to do an initial dose of 20 Gy in fractionated ten sections and repeat the images. The posterior MRI showed significative reduction of the mass. Then, we completed the treatment with 30 Gy in fractionated fifteen sections in linear accelerator (total dose 50 Gy). **Conclusion:** We describe a patient with DI and hypopituitarism associated a pituitary-hypothalamic lesion suggestive of GCT, with extense negative investigation, who was treated only by RT and excellent evolution. This approach should be recommended in similar cases avoiding hazardous surgical procedures.

PO 054 GRANULAR CELL TUMOR OF THE CENTRAL NERVOUS SYSTEM: A CASE REPORT

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Introduction: Granular cell tumor (GCT) of the central nervous system (CNS) is a rare tumor of the neurohypophysis. It was first described by Boyce and Beadles in 1983. It has been considered synonymous of choristoma, pituicytoma and granular cell myoblastoma. In 2007, WHO elucidated the diagnostic criteria and ranked these diseases. Most cases of GCT are asymptomatic and discovered at autopsy. Symptomatic tumors are unusual. 81 cases were described until 2011, most of them were localized suprasellar and presented in the fourth decade of life with a female predominance. Clinical finding are nonspecific and most commonly include endocrine disorders, visual disturbance and headache. The most typical aspect on magnetic resonance imaging (MRI) is a homogeneously captation well-defined lesion contrast in suprasellar topography. **Case description:** A 33- year- old man was admitted to the Endocrinology Department of Campinas University in 2010 presenting an intra and suprasellar "nonfunctional" adenoma. Over the past 2 years he underwent a pituitary surgery plus 28 sessions of radiotherapy. Pathological findings were first interpreted as suggestive of pituitary adenoma eosinophilic cells. He complained of decreased libido and impotence, weakness, decreased hair growth, weight gain and episodes of transient amaurosis prior to surgery. GH deficiency and hypocortisicism was evident in endocrine assessment. He developed panhypopituitarism, right eye amaurosis, left temporal hemianopsy and started hormone replacement. It was decided for a transsphenoidal approach due to worsening of left visual acuity. Preoperative MRI of the sella: expansive, isointense, predominantly solid lesion in the posterior region of the sella and suprasellar component, measuring 17X12X11mm. In its upper aspect presented component was hyperintense on T1 (which may represent the posterior pituitary hemorrhage or even tissue). The neurohypophysis was not identified. Thus, the report suggested considering adenoma tumor or myoblastoma by topography. The surgery was on 2/27/13 with no intra-and postoperative complications. Pathological findings: granular cell tumor of the neurohypophysis (WHO 1). Previous hematoxylin-and-eosin-stained were reviewed and corroborate this diagnosis. The patient is clinically well without evidence of tumor recurrence. **Conclusion:** This report emphasizes the importance of the differential diagnosis of granular cell tumor for isointense solid lesions on T1 and T2 with contrast enhancement in suprasellar topography. The preoperative diagnosis based on MRI may be challenging because there are no pathognomonic features. However, the observed findings in this case are similar to those reported in the literature which allows to consider it in the differential diagnosis.

PO 055 HYPOPITUITARISM IN ASSOCIATION WITH METABOLIC SYNDROME AND LIVER STEATOSIS: A CROSS SECTIONAL STUDY

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Introduction: Hipopituitarism (HP) is the deficiency of pituitary hormone production due to several etiologies: tumoral compression, apoplexy, inflammatory diseases, trauma, iatrogenia, among others. It results in a rise in morbid-mortality rates, higher when associated with the metabolic syndrome (MS). However, few studies exist evaluating the prevalence of MS in these patients. Liver esteatosis and non-alcoholic esteatohepatitis (NASH) have been related to insulin resistance and metabolic syndrome. Patients with HP have an increase in liver esteatosis and NASH prevalence, both initial stages of non-alcoholic fatty liver disease. The recurrence of esteatohepatitis has been described after liver transplantation in these patients, confirming the importance of the metabolic disturbances in HP. **Objective:** To evaluate the prevalence of MS and liver esteatosis in patients with HP and to correlate the presence of these disturbances with characteristics of the pituitary failure and the ethiology. **Methodology:** It is a cross-sectional study where patients with diagnosis of HP treated with hormonal replacement were evaluated. The patients were followed up in the Endocrinology Service, HC-Unicamp. We included 41 patients with HP evaluated by clinical examination, glicemia, insulin, profile of lipids, AST, ALT, gamma GT and abdominal ultrassonography evaluation. The diagnosis of metabolic syndrome was made in accordance with the criteria of ATP III NCEP and AHA of 2005. All participants signed an informed consent form, and the protocol was approved by the Research Ethics Committee of the State University of Campinas. **Results:** We included 21 women and 20 men, 25 patients (61%) had MS and 32 (78%) had liver esteatosis. MS showed positive correlations with hypertrigliceridemia, *diabetes mellitus*, HbA1c, BMI, female sex and waist hip ratio. Liver esteatosis was positively correlated with MS, diabetes, hypertrigliceridemia and female sex. We did not find correlations between MS or liver esteatosis with the etiology of the pituitary failure. **Conclusions:** There was high prevalence of MS and liver esteatosis in the patients with HP. MS and liver esteatosis correlated to some disturbances that belong to diagnostic criteria of MS and to the female sex.

PO 056 CORRELAÇÃO DA PRESSÃO ARTERIAL DE 24H E IGF-1 NA ACROMEGALIA

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Introdução: A acromegalia está associada a aumento da morbimortalidade cardiovascular. Hipertensão arterial (HAS), miocardiopatia