between levothyroxine administration and the previous meal. There was no significant change in the mean plasma TSH for patients taking levothyroxine at dusk before iftar or at dawn before Suhur. The least patient-preferred time for taking levothyroxine was at dawn before Suhur possibly due to time constraints before the start of fasting.

Thyroid

THYROID CANCER CASE REPORTS II

Papillary Thyroid Carcinoma in the Thyroglossal Duct

Katty Manrique Franco, PhD1, Helard Andres Manrique, MD2, William Lapa Yauri, MD1, José Solis Villanueva, MD1.

1Hospital Nacional Arzobispo Loayza, Lima, Peru, 2Centro de Diabetes, Lima, Peru.

MON-455

PAPILLARY THYROID CARCINOMA IN THE THYROGLOSSAL DUCT

BACKGROUND

In the thyroglossal duct (TD) there are remains of thyroid tissue in 1-40%. Thyroid cancer diagnosed in this duct is an uncommon finding, with a prevalence of less 1% and must meet these criteria: identify the TD, locate remains of carcinoma in it; absence of cancer in the thyroid gland and presence of thyroid follicles in the TD. We present a patient with thyroid cancer in the TD.

CLINICAL CASE

63-years-old-woman. 18 months ago, she noted a submandibular tumor associated to asthenia, weight loss and tremor. On physical examination: 3cm tumor, increased consistency, near to the hyoid bone and 1.5cm left cervical adenopathy. Cervical US: heterogeneous mass 39x15x26mm in midline of suprathyroid region suggestive of neoformative process.

Cervical CT scan: solid, heterogeneous, neoformative tissue, located in the midline, infiltrating prelaringeal muscles in contact with hyoid bone. Cervical adenopathy in group II on right side and group III and IV on the left side. Increase in thyroid gland volume.

FNA US guided of suprathyroid tumor was performed: cytology compatible with papillary thyroid carcinoma, Bethesda VI. FNA left adenopathy: compatible with metastasis papillary carcinoma.

Midline tumor exeresis in relation to a TD (Sistrunk surgery), total thyroidectomy plus left lymph node dissection group IIA, IIB, III, IV and V was performed.

Surgical findings: Right lobe thyroid 4x3x2cm with 1cm nodule on the upper pole. Left thyroid lobe 6x4x2cm with multiple nodules, the largest one in upper pole, 2cm. Multiple adenopathies. A 3x3x1cm tumor with irregular edges, hard consistency, adhered to the hyoid bone was removed.

The histology was compatible with papillary thyroid carcinoma in the TD. Thyroid gland was informed as simple goiter.

150ug of levothyroxine was initiated. Six months later, she receives 100mCi I131. The total body scan was positive for thyroid remnant in cervical region, TSH 0.8 FT4 1.71. Thyroglobulin (TG) 13.98 and AntiTG 400.

One year later, new total body scan was negative. TG 10,3 and antiTG 816. New thyroid US showed group III cervical adenopathy 4x7x3mm. Biopsy was compatible with metastasis of papillary thyroid carcinoma. The patient is awaiting a new surgery for lymph node dissection.

CONCLUSION

Sistrunk surgery and total thyroideectomy plus lymphadnectomy should be the treatment of choice in thyroid cancer in TD, followed by ablative therapy. This attitude improves long-term follow-up and reduces the risk of recurrence.

BIBLIOGRAPHY

1. Granado A, et al. Cáncer del conducto tirogloso. Acta Chir Catal, 8 (1987), 37-44

2. Échenique E. Thyroid cancer arising in a thyroglossal duct cyst. Cir Esp. 2000 67 (6) 567-71.

Adrenal

ADRENAL CASE REPORTS I

Hypoglycemia Following Unilateral Pheochromocytoma Resection in the Immediate Post-Surgical Period

Raisa Ghosh, MD, Santhekumar Dalwadi, MD, Hongxiu Luo, MD.

ST PETERS MEDICAL CENTER, New Brunswick, NJ, USA.

SAT-202

Introduction

Hypoglycemia in the immediate post-resection period of unilateral pheochromocytoma is a potential complication but not very well recognized.

Clinical Case

A 47 year old female with past medical history of Hypertension, coronary artery disease, Myocardial infarction, Depression, Systemic lupus erythematosus presented to the hospital initially for elective robotic assisted Left adrenalectomy. CT scan showed a big left adrenal mass with normal right adrenal gland. It was clinically diagnosed as Pheochromocytoma as outpatient by primary internist. Biochemical studies showed elevated serum metanephrines and normetanephrines, and urine normetanephrine.

Post-surgery (< 24 hours) patient had episodes of fasting hypoglycemia with blood glucose levels as low as 68 mg/dl, accompanied with neuroglycopenic symptoms like tremors, sweating and palpitations.

High dose ACTH stimulation test was performed. Serum cortisol levels were tested as 5.1, 11.7 and 14.4 mcg/dl within 0, 30 minutes and 60 minutes of Cosyntropin 250 mcg IV injection.

The patient was started on Prednisone 5 mg daily to prevent any further episodes, which was successful, and was stopped by the patient one week after discharge, without any more hypoglycemia episodes. Further endocrinology work up could not be done as the patient did not follow up.

Post-surgical pathology showed a 7x 5.5 x4 cm mass, which was confirmed as pheochromocytoma histopathologically and
immunohistochemically by positive chromogranin, synaptophysin and BCl2 and negative for calretinin and S100.

Discussion and Conclusion

The etiology of hypoglycemia after resection of unilateral pheochromocytoma can be explained by impaired glucagon secretion and decreased gluconeogenesis due to the suppression from higher catecholamine levels in the blood pre-operatively. The second mechanism is rebound insulin secretion from the pancreas due to sudden withdrawal of catecholamines. In our patient, the transient hypocortisolism could be another reason. The lack of immunohistochemical evidence in post-surgical pathology report excluded cortisol-secreting tumor. Another rare situation, ACTH-secreting pheochromocytoma, has been reported but was not checked in the case.

In a word, hypoglycemia is common after surgical removal of unilateral pheochromocytoma. Careful monitoring of patients’ glucose level in immediate post-resection period is essential to prevent transient hypoglycemia.

References

1. Akiba M, Kodaba T, Ito Y, Obara T, Fujimoto Y. Hypoglycemia induced by excessive secretion rebound of insulin after removal of pheochromocytoma. World J Surg; 14(3):317-24
2. Chen Y, Hodin RA, Pandolfi C, Ruan DT, McKenzie TJ. Hypoglycemia after resection of pheochromocytoma. Surgery;156(6): 1404-09

METHODOLOGY: Eligible patients were pregnant women with pre-existing Type 1 and Type 2 diabetes who were followed in pregnancy until their 6 weeks postpartum clinic visit. Consecutive baseline chart review of patients between June 2018 - June 2019 was performed to audit documentation of physician counselling of DC CPG recommendations at the 6 week post-partum visit. Key components of the recommendations included: 1) targeting an HbA1c of <7% pre-pregnancy, 2) folic acid supplementation and neural tube defect prevention, 3) weight management and optimization of BMI, 4) contraceptive measures and family planning, 5) information regarding outcomes and risks for mother and baby 6) yearly retinal exam.

RESULTS: Results of our chart review found that 42% (n=50) of women with pre-existing diabetes who received their intrapartum care at our clinic returned for their 6 week postpartum visit between June 2018-June 2019. Audit of the 6 week post-partum clinic note found that less than 20% of women had physician documentation of counselling on two or more key components of the DC CPG recommendations (1-6).

CONCLUSION: There is a large gap in women attending postpartum appointments and there are significant gaps in physician documentation of counselling among women with pre-existing diabetes. Further analysis will be conducted in order to determine if there is a patient knowledge gap regarding counselling recommendations and a quality improvement project will be undertaken to close this gap.

Neuroendocrinology and Pituitary

PITUITARY TUMORS I

Muscarinic and Adrenergic Receptor Cooperativity in a Human Adrenocortical Carcinoma Cell Line

Latha Malaiyandi, PhD, Alice Meyer, MS,
Nuntida Surachaicharn, MA, Dominic Pelchat, BS,
Annette Gilchrist, PhD, Phillip Kopf, PhD, Kirk Dineley, PhD.
Midwestern University, Downers Grove, IL, USA.

SAT-306

The role of autonomic receptors in the regulation of the adrenal cortex is poorly understood. We recently showed that activation of M2 muscarinic receptors stimulates intracellular calcium oscillations, aldosterone production, and expression of CYP11B2 (1). The present study explores the relationship between muscarinic and adrenergic receptors in corticosteroid production. Using live-cell fluorescence imaging of HAC15 adrenocortical cells with the calcium-sensitive probe Fluo-4, we have shown that stimulation of adrenergic receptors with the endogenous, non-selective adrenergic agonist norepinephrine (10μM) enhances intracellular Ca2+ oscillations caused by the cholinergic agonist carbachol (1μM). However, Ca2+ is not affected by norepinephrine alone. Adrenergic enhancement of carbachol-induced Ca2+ oscillations is blocked by the α adrenergic receptor antagonist phentolamine, but not by the β adrenergic receptor antagonist propranolol. Specifically, α2 and β2 antagonists (such as yohimbine and butoxamine, respectively) significantly suppressed the norepinephrine effect, but α1 and β1 antagonists (such as tamsulosin and metoprolol, respectively) had no effect. RT qPCR identified α2A receptors as the most abundant adrenergic receptor.