

than 2 of 13 women were not in the fasting state when undergoing amniocentesis.

Results: In the cord blood samples, ace-K and saccharin were present in 12/15 (80%) samples. None of the samples contained sucralose. In the 13 amniotic fluid samples, 10 (77%) samples contained at least one sweetener. One sample was positive for all 3 sweeteners. Maximum concentrations in cord blood were 6.5 ng/mL for ace-K and 2.7 ng/mL for saccharin, while maximum concentrations in amniotic fluid were 78.9 ng/mL for ace-K, 55.9 ng/mL for saccharin, and 30.6 ng/mL for sucralose (non-fasting sample). Most women were in the fasting state before undergoing amniocentesis or giving birth, thus NNS peak concentrations could not be determined in this pilot study.

Discussion and Conclusion: 80% of cord blood samples (babies' blood) and 77% of amniotic fluid samples (reflecting babies' direct gastrointestinal/lung exposure) contained ace-K, saccharin and/or sucralose. We speculate that NNS exposure may influence in utero growth and development, e.g. sweet taste preference and metabolic pathways. Prospective studies are necessary to test these hypotheses. Results will determine whether current recommendations (or lack thereof) regarding NNS intake during pregnancy and lactation need to be revised.

Neuroendocrinology and Pituitary

PITUITARY TUMORS II

Prolactin as a Surrogate Marker to Predict Long Term Postoperative Hypopituitarism After Transsphenoidal Resection of Pituitary Adenomas

Massiell German, MD, Devaprabu Abraham, MD,

William Couldwell, MD, PhD, Debra L. Simmons, MD, MS,

Anu Sharma, MD.

University of Utah School of Medicine, Salt Lake City, UT, USA.

MON-304

Transsphenoidal surgery (TSS) is the first line treatment for pituitary adenoma. A well-known complication of TSS is hypopituitarism with a reported risk of 5-25% after resection of pituitary adenomas. A decrease in postoperative prolactin concentration was shown to be associated with postoperative hypopituitarism in a previous report. We hypothesized that in addition to clinical factors (preoperative hypofunction and adenoma size), biochemical factors (change in prolactin concentration and immediate postoperative hypofunction) can aid in predicting long term hypopituitarism as defined as ≥ 1 biochemically confirmed hypofunctioning pituitary axes 3 years after resection. A retrospective analysis of all patients undergoing TSS for both functioning and non-functioning pituitary adenomas at a tertiary center from January 2013 through December 2015 was performed. Prolactinomas were excluded. Of the 75 patients included, 21.3% (n=16) had at least one pituitary axis requiring replacement at 3 years post operatively. Mean age at presentation was 55 ± 16 years, 55% were female and 81% were Caucasian. Mean adenoma size was no different between normal pituitary function and hypopituitary groups (24.0 ± 11.9 mm versus 25.3 ± 10 , $p=0.7$). Factors associated with long term hypopituitarism were older age (mean age 64 ± 4 years versus 53 ± 2 years, $p=0.02$), preoperative secondary adrenal insufficiency (AM

cortisol 6.4 ± 3.7 vs 12.0 ± 6.5 $\mu\text{g/dL}$; $p=0.03$), preoperative secondary hypothyroidism (0.8 ± 0.2 vs 12.0 ± 6.5 ng/dL; $p < 0.01$), low immediate postoperative cortisol (5.3 ± 3.1 vs 26.1 ± 18.3 $\mu\text{g/d}$; $p < 0.01$), and persistence of adrenal insufficiency (10.7% vs 2.7%; $p < 0.01$) and secondary hypothyroidism (13.3% vs 5.3%; $p < 0.01$) at 3 months. Change in prolactin concentration from preoperative to postoperative day 1-7 was not significantly different between groups ($p=0.09$) due to the higher variability in the hypopituitary group (median 0.2 ng/mL, IQR -0.5 - 0.8 ng/mL) compared to the normal pituitary function group (median 0.7 ng/mL, IQR 0.5-0.8 ng/mL). Adenoma size, optic chiasm and cavernous sinus involvement were not associated with long term hypopituitarism. In patients who developed postoperative hypopituitarism, there was a higher frequency of adenoma persistence or recurrence (20% vs 47%). There was a high rate of patients lost to follow up (56%). Older age, the presence of preoperative secondary adrenal insufficiency and hypothyroidism, and low day 1-7 postoperative cortisol concentration are factors that can be used to deem a patient high risk for future hypopituitarism. These patients should have close follow up with continued screening postoperatively. Contrary to prior reports, adenoma size and parasellar involvement were not associated which may be suggestive of surgical expertise. Prolactin concentrations proved not to be a good surrogate marker to predict long term hypopituitarism.

Reproductive Endocrinology

SEX, GENDER, AND HORMONES

Sexual Desire Changes in Transgender Individuals upon Initiation of Hormone Treatment; Results from the Longitudinal ENIGI Study

Justine Defreyne, MD¹, Els Elaut, PhD¹, Baudewijntje Kreukels,

MD, PhD², Alessandra Daphne Fisher, MD, PhD³,

Giovanni Castellini, MD, PhD⁴, Annemieke Staphorsius, Master²,

Martin Den Heijer, MD, PhD², Gunter Heylens, MD, PhD¹,

Guy G. T'Sjoen, MD, PHD⁵.

¹Ghent University Hospital, Ghent, Belgium, ²Amsterdam University Medical Center, Amsterdam, Netherlands,

³Department of Experimental, Clinical and Biomedical Sciences, FIRENZE, Italy, ⁴University of Florence, Florence, Italy,

⁵University Ghent, Gent, Belgium.

OR27-05

Introduction: Several steps in the transitioning process may affect sexual desire in transgender people. This is often underexposed by those providing gender affirming care. Testosterone therapy in transgender men (TM) generally leads to increasing frequency of desire, masturbation, sexual fantasies and arousal. Studies in transgender women (TW) are inconclusive: some report an increase in the prevalence of hypoactive sexual desire after initiation of hormone therapy, whereas others have shown a positive impact of hormonal therapy on sexual quality of life. The current study prospectively assesses sexual desire during the first three years of hormonal therapy (HT) in transgender people. **Methods:** This prospective cohort study was part of the European Network for the Investigation of Gender Incongruence (ENIGI). Sexual desire was prospectively assessed in 766 participants (401 TW, 364 TM) by Sexual

Desire Inventory (SDI) during a three-year follow-up period, starting at the initiation of hormone treatment (HT). SDI scores were analyzed as total, dyadic and solitary SDI scores. At baseline, psychological questionnaires were administered. Sex steroids were measured at each follow-up visit. Data were analyzed cross-sectionally and prospectively. Results: In TW, total, dyadic and solitary SDI scores decreased during the first three months of HT. However, after 36 months, total and dyadic SDI scores were higher than baseline scores. Solitary scores after 36 months were comparable to baseline scores. In TM, total, dyadic and solitary SDI scores increased over the first three months, remaining stable thereafter. However, total and dyadic SDI scores after thirty-six months were comparable to baseline scores, whereas solitary scores remained higher than baseline. Factors associated with a prospective increase in SDI scores included having undergone gonadectomy, no longer experiencing vaginal bleedings (in TM) or higher gender dysphoria levels at baseline (in TM only). Factors associated with higher cross-sectional SDI scores included being in a relationship, undergoing gonadectomy, no longer experiencing vaginal bleedings (TM), lower gender dysphoria scores (TW only) and lower body dysphoria scores (TW only). Conclusion: Gender affirming hormonal therapy induces short-term changes in sexual desire in transgender people. Over a longer period of time, a net increase in dyadic sexual desire in TW receiving feminizing HT was observed. Sexual desire scores comparable to baseline in TM receiving virilizing HT were found. We observed no correlation between sexual desire and absolute serum testosterone levels. However, other factors, including undergoing gonadectomy, persistence of vaginal bleedings (in TM) and psychological factors may influence sexual desire in transgender people.

Pediatric Endocrinology

PEDIATRIC OBESITY, THYROID, AND CANCER

Clinical Characteristics and Management of Thyroid Cancer in Pediatrics: Results from the Mexican Population Registry Between 2010-2019

Isabel B. Galán, MD fellow endocrinology¹, Thelma G. Barreto, MD Fellow endocrinology¹, Lucia Reyes, MD fellow endocrinology¹, Raúl Calzada, MD Pediatric Endocrinologist¹, Lissette Arguinzoniz, MD Pediatric Endocrinologist², Maria de la Luz Ruiz, MD pediatric endocrinologist¹, Nelly Altamirano, MD Pediatric Endocrinologist¹, Luisa G. Diaz, MD¹, Paola Sophia Bonilla, fellow endocrinology³, Carlos Robles, MD Endocrinologist¹.

¹National Institute of pediatrics., Mexico City, Mexico, ²Institute nacional de pediatria, Ciudad de Mxico, Distrito Federal, Mexico, ³National institute of pediatrics, Mexico City, DF, Mexico.

MON-092

METHODS

Study: Analytical and retrospective
Patients files diagnosed with Thyroid Cancer treated during January 2010 to May 2019, who underwent surgical intervention and histopathological study were reviewed. Chi Square test were used as statistical analysis. A level of significance $p < 0.001$ was established.

INTRODUCTION: Cancer thyroid in pediatrics is characterized by advanced presentation, coupled with frequent lymph nodal metastases and often pulmonary metastases. There are few reports on the rate of cancer and hypoparathyroidism in children.

OBJECTIVE: Describe of pediatric thyroid cancer with particular emphasis on the clinical characteristics, risk factors associated and with treatment outcomes

RESULTS

43 patients were included in the study 69.8% were female. Average age of 12 years (range 5 to 17 years). Association of cancer and thyroiditis 25% and Cancer with Graves Disease 2.3%.

Histopathological diagnoses of thyroid cancer: 86% papillary, 2.3% follicular, 11.6% medullary, 69.8% patients presented with metastases, most often lymph node (46.5%), pulmonary (2.3%) and pulmonary plus lymph node (23.3%), 11.6% patients do not present metastasis and 16.3% without data.

Surgical interventions: only thyroidectomy 16.3%, Hemithyroidectomy 4.7%, total thyroidectomy with lymph node emptying 74% and modified radical neck dissection 5%. In 16% of the patients, second surgery was required after the histopathological report. Post-surgical hypoparathyroidism was recorded in 27 patients (62%): transitory in 11 (25%) and 16 (37%) permanent.

Biochemical variables: (N %/ Hypoparathyroidism /NO hypoparathyroidism) of 18 patients with post-surgical PTH < 10 pg/ml (18/42%/17/1) 17 of them presented post-surgical hypoparathyroidism (P < 0.001), PTH > 10 pg/ml (13/30%/9/4), and without post-surgical measurement of PTH (12/28% / 6/6). Post-surgical ionized calcium < 4 mg/dl in 29 patients of which 22 had hypoparathyroidism (P < 0.001) (29 / 67.4% / 22/7), with calcium > 4 mg/dL (14 / 32.6% / 9/5). 21 patients with seric calcium < 8 mg/dl 20 with hypoparathyroidism. (21/48%/ 20/1) (P < 0.001). Seric calcium > 8 (16/37%/9/7) without measurement data. Serial calcium in 6 patients (6/15% / 3/3). Postoperative positive thyroglobulin parameter was presented as an risk factor for complication and metastases OR 1.42 (1-1.6)

Regarding iodine treatment, 29 patients received an average dose of 200 (range 100- 720 milicuries mCi).

CONCLUSIONS

Papillary cancer is the most common type in pediatric patients, evidence of metastases find in 69.8% most frequent lymph node, postoperative thyroglobulin OR 1.42. They should always be considered in the management of these patients. As a post-surgical complication, there is an increased risk to present hypoparathyroidism when PTH less < 10 pg / ml, post-surgical ionized calcium < 4 mg/dl and serum calcium < 8 mg/dl.

Bone and Mineral Metabolism

BONE AND MINERAL CASE REPORTS II

Unusual Presentation of Hypercalcemia Preceding the Diagnosis of Methotrexate-Induced Pneumocystis Jirovecii Pneumonia from Treatment of Necrotizing Myopathy

Minhthao Nguyen, DO, Afshan Mohiuddin, MD.

UH Richmond Medical Center, Cleveland, OH, USA.