enriched for signal-inducible and circadian transcription factor motifs. Our genome-wide sequencing reveals a new role for the clock in global chromatin remodeling underly the incretin response in pancreatic β cells.

Neuroendocrinology and Pituitary

Factors Associated With QoL Impairment In Patients With Acromegaly In The Elderly

Naoki Yamamoto, MD,1 Shin Urai, MD,1 Hidenori Fukuoka, MD, PhD,1 Masaaki Yamamoto, MD, PhD,1 Hiroki Shichi, MD,2 Yasunori Fujita, MD, Kettaro Kanie, MD, Kenichi Yoshida, MD,2 Genzo Iguchi, MD, PhD,2 Wataru Ogawa, MD, PhD,2 Yutaka Tukahashi, MD, PhD,2
1Kobe University Hospital, Kobe City, Japan, 2Kobe University Graduate School of Medicine, Kobe City, Japan.

MON-268

Background: With rapid aging in the society and the improvement of prognosis in patients with acromegaly, treatment goals have been changed. In elderly patients with acromegaly, improvement in the quality of life (QoL) is one of the most important treatment goals. However, factors associated with QoL in elderly patients with acromegaly remains unclear.

Objective: To clarify the differences in the QoL in patients with acromegaly between the young and elderly, and to identify the factors associated with the impairment in the elderly.

Patients and Methods: This is a retrospective cross-sectional single-center study. Eighty patients with acromegaly (male 49%, the mean age 59.6±12.6 years, mean IGF-I SD score 0.7±2.3), who had been followed up in the outpatient clinic at Kobe University Hospital, were enrolled. Patients were divided into following 2 groups; Elderly group (E group); 65 years of age or more (n =34, male 41%, mean age 71.4±4.1 years), or Young group (Y group); younger than 65 years old (n =46, male 50.9%, mean age 50.9±9.2 years). We evaluated QoL using AcroQoL and analyzed the associated factors by multivariate analysis.

Results: In the comparison of E and Y group, IGF-I SD score (0.4±1.6 in E group vs. 0.9±2.7 in Y group) and the way of treatment (surgery; 65% vs 72%, current medical therapy; 56% vs 43%, past radiation therapy; 15% vs 9%) were comparable, while disease duration was longer in E than Y group (13.7±10.9 vs 8.3±8.1 years, p =0.02). Arthropathy was more frequent in E group (50% vs 11%, p <0.01).

In total, current medical therapy and hydrocortisone replacement were associated with lower total scale (β =-0.27, p =0.01 and β =-0.35, p <0.01). Then, we separately analyzed the associated factors in each E and Y group. In Y group, current medical therapy and hydrocortisone replacement were associated with lower total (β =-0.48, p <0.01, and β =-0.35, p <0.01) and physical scales (β =-0.40, p <0.01, and β =-0.31, p <0.01). Past radiotherapy for the pituitary tumor was also associated with lower mental scale (β =-0.40, p <0.01). On the other hand, in E group, arthropathy and high BMI were associated with lower total scale (β =-0.41, p =0.02, and β =-0.40, p =0.02) and current hydrocortisone replacement was associated with lower physical scale (β =-0.36, p =0.03).

Conclusions: AcroQoL score was impaired both in E and Y group in patients with acromegaly. In total, current medical therapy and hydrocortisone replacement were associated with lower QoL scale as previously reported; however, when stratified by age, arthropathy and high BMI were associated with lower QoL scale in the elderly. These data clearly indicate that the factors influence on QoL are different depending on the age. Although causal relationship remains unclarified, these data suggest that when treat the patients, it may be important to avoid these complications.

Thyroid

THYROID DISORDERS CASE REPORTS III

Acute Thyroid Edema: A Rare Complication of Thyroid Fine Needle Aspiration

Rachael Bree Hosein, MBBS, Neel L. Shah, MD, Marc Cillo, MD
McGovern Medical School, The University of Texas Health Science Center, Houston, TX, USA.

MON-479

Background: Acute thyroid swelling is a rare complication of thyroid fine needle aspiration (FNA). The first documented case was in 1982 and to date there are less than 20 cases currently reported in the literature (1).

Case Presentation: A 66-year-old female with a history of non-ischemic cardiomyopathy and heart failure was admitted to hospital to expedite heart transplant evaluation. A neck ultrasound was performed due to voice hoarseness and concern for vocal cord nodules. The ultrasound showed a 1.3 cm hypoechoic nodule in the right thyroid lobe. Given that the nodule had irregular borders and microcalcifications, a thyroid FNA was recommended.

The patient’s home warfarin had been held for at least three days prior to the biopsy and her INR on the procedure date was 1.4. Her heparin drip was held four hours prior to the thyroid FNA. Immediately following the procedure, a 3.2 cm hematoma formed inferior to the thyroid gland. The heparin drip was restarted 6 hours post-FNA as per radiology’s recommendation. Cytology of the nodule was benign.

The patient recovered well post FNA and improvement in the hematoma was noted on exam. Her hemoglobin was stable and she was restarted on warfarin. On day two post thyroid FNA, she reported significant neck pain, with no corresponding increase in the extra-thyroidal hematoma. No stridor or other concerning features were present on exam. A repeat thyroid ultrasound was performed three days after the FNA. It demonstrated fluid filled ‘cracks’ within the thyroid parenchyma and tripling in the volume of the thyroid gland, concerning for diffuse edema. No heterogeneity or subcapsular thickening was seen to suggest hemorrhage, and the previously demonstrated 3.2 cm extra-thyroidal hematoma was not visualized.

She was treated with ibuprofen 800 mg and prednisone 30 mg, and noted an improvement in her neck pain with these measures. A repeat ultrasound done three weeks later showed a decrease in the size of the hematoma.
Among the total participants without diabetes with Ativan and steroid taper to physiologic dose. Suicidal ideation and catatonia which resolved quickly five days after steroid therapy, patient was admitted for dose was gradually tapered down in a few days. However, while NSAIDs or steroids may help with symptoms, patients appear to improve irrespective of whether or not medications are given. This suggests that ATS is a self-limiting condition without long-term complications.

Reference: (1) Polyzos SA, Anastasilakis AD, Arzos. Acute transient thyroid swelling following needle biopsy: An update. Hormones. 2012;11(2):147-150

Adrenal

ADRENAL CASE REPORTS I

Newly Diagnosed Schmidt's Syndrome and Steroid Induced Psychosis
Myat Han Soe, MD, MHS.
UCSF Medical Center, Redwood City, CA, USA.

SAT-230

In 1926, Schmidt reported the combination of hypothyroidism and adrenal insufficiency (AI) with lymphocytic infiltration of both the thyroid and adrenal glands.1 This syndrome is now known as autoimmune polyendocrine syndrome (APS) type 2, characterized by two of the following three endocrinopathies: type 1 diabetes, autoimmune thyroiditis, and Addison's disease.2 It may seem surprising that transient relative hypercortisolism in AI patients at the beginning of treatment results in steroid induced psychosis (SIP). Here, we present a patient who developed SIP after starting steroid for AI.

44 year old Caucasian female with bipolar disorder and Hashimoto’s thyroiditis was admitted for generalized weakness, nausea, vomiting and weight loss of about 15 pounds in 3 months. On exam, blood pressure was 93/54 mmHg and pulse rate was 99. Her abdomen and arms looked hyperpigmented. Lab test revealed plasma glucose of 68 mg/dl, serum sodium of 129 mmol/l (133-145), potassium of 4.9 mmol/l (3.6 – 5.2), bicarbonate of 20 mmol/l (22 – 29), TSH was 16.93 mIU/ml (0.4 – 4.00) and FT4 was 0.74 ng/dl (0.7 1.8). CT abdomen and pelvis with contrast was normal. Cerebrospinal fluid had protein level of 47 mg/dl, lymphocytes of 5/mm3 and glucose of 34 mg/dl. CSF exam was negative for infection and malignancy.

SAT-634

ABSTRACT

Background: Cigarette smoking is a major public health problem and the leading cause of death. We aimed to analyze the effects of cotinine verified smoking on the development of diabetes mellitus.

Methods: Among individuals enrolled in the Kangbuk Samsung Health Study and Kangbuk Samsung Cohort Study, a total of 17,626 men (mean age 37.9 years) who underwent a health screening program in 2011 and 2017 were enrolled. Anthropometric and biochemical parameters, including urinary cotinine level were measured. The odds ratios (OR) for the presence of diabetes were analyzed in three groups according to their self-reported smoking status (Never smoker; Quitter and Current smoker) and cumulative amount of smoking. Individuals with urinary cotinine levels >50 ng/mL were defined as cotinine-verified current smokers.

Results: Among the total participants without diabetes at baseline, 605 (3.4%) participants had diabetes after 6 years. The risk for diabetes was lower in nonsmokers than in current smokers and quitters after adjusting for confounding factors (OR 0.71; 95% confidence interval (CI)0.56-0.89) with current smokers as the reference group. The risks of diabetes were gradually increased with amount of smoking in both quitters and current smokers. When the participants were analyzed in subgroups according to the urinary cotinine levels, those with high urinary cotinine levels >500 ng/mL showed the higher risk for the development of diabetes (OR 1.57; 95% CI 1.27 – 1.93).

Conclusions: This study showed that cotinine-verified smoking was associated with the development of diabetes. Furthermore, there was a potential association between smoking amounts and the development of diabetes regardless of smoking cessation. We also found that those with APS type 2 has a prevalence of 1:1000. Clinicians should raise the suspicion for this syndrome in the appropriate context as seen in this patient presenting with classic features of AI. Although SIP in AI patients is not frequently reported, we should be mindful about this potential event especially in patients with underlying psychiatric illness. It is postulated that prolonged hypocortisolism in undiagnosed AI might lead to upregulation of central glucocorticoid receptors and hence glucocorticoid replacement might elicit a relative supraphysiological response in these patients.