

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

## Neuroendocrinology and Pituitary

### NEUROENDOCRINOLOGY AND PITUITARY

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

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#### 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 $\pm$ 12.6 years, mean IGF-I SD score 0.7 $\pm$ 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 $\pm$ 4.1 years), or Young group (Y group); younger than 65 years old (n =46, male 50.9%, mean age 50.9 $\pm$ 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 $\pm$ 1.6 in E group vs. 0.9 $\pm$ 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 $\pm$ 10.9 vs 8.3 $\pm$ 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 ( $\beta = -0.27$ ,  $p = 0.01$  and  $\beta = -0.35$ ,  $p < 0.01$ ). 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 ( $\beta = -0.48$ ,  $p < 0.01$ , and  $\beta = -0.35$ ,  $p < 0.01$ ) and physical scales ( $\beta = -0.40$ ,  $p < 0.01$ , and  $\beta = -0.31$ ,  $p < 0.01$ ). Past radiotherapy for the pituitary tumor was also associated with lower mental scale ( $\beta = -0.40$ ,  $p < 0.01$ ). On the other hand, in E group, arthropathy and high BMI

were associated with lower total scale ( $\beta = -0.41$ ,  $p = 0.02$ , and  $\beta = -0.40$ ,  $p = 0.02$ ) and current hydrocortisone replacement was associated with lower physical scale ( $\beta = -0.36$ ,  $p = 0.03$ ).

**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*

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#### 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