

deficiencies with secondary AI including 6 with secondary hypothyroidism, 1 patient with hypogonadotropic hypogonadism and 1 with hypothyroidism and hypogonadism in addition to secondary AI. Despite development of irAEs, ICI therapy was continued in 59 pts (65%) who developed an endocrine irAE. **Conclusions:** In summary, this is one of the largest single institution retrospective studies on ICI related endocrinopathies. The majority of endocrinopathies were low grade, and most patients continued ICI treatment. Reference: Barroso-Sousa, Romualdo. Incidence of Endocrine Dysfunction Following the Use of Different Immune Checkpoint Inhibitor Regimens: A Systematic Review and Meta-analysis. JAMA, Sept 2017

## Adrenal

### ADRENAL - HYPERTENSION

#### *Role of Female Gender and Subcutaneous Fat in the Positive Association of Obesity with Idiopathic Hyperaldosteronism*

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#### MON-210

**Context:** Primary aldosteronism (PA) is the most frequent cause of secondary hypertension. The relationship between PA and various metabolic disorders including obesity, diabetes mellitus and dyslipidemia has been reported. On the other hand, PA consists of two main subtypes: unilateral aldosterone-producing adenoma (APA) and the bilateral idiopathic hyperaldosteronism (IHA), which have different etiologies. Recently, it was reported that the prevalence of obesity was higher in patients with IHA than those with APA, suggesting that there is a link between obesity and the etiology of IHA (Ohno Y et al. *J Clin Endocrinol Metab* 2018). Furthermore, it has also been reported that female patients with PA are more likely to have IHA than male patients.

**Objective:** Our objective was to clarify the pathological role of female gender in the positive association of obesity with IHA. Because of the difference of body fat distribution between men and women, we also investigate the contribution of visceral and subcutaneous fats in the pathogenesis of IHA.

**Design:** This retrospective observational study comprised 117 PA patients (IHA: n = 73, APA: n = 44) diagnosed by adrenal venous sampling between January 2006 and July 2019 at Jichi Medical University Hospital. We compared prevalence of obesity and metabolic parameters including visceral and subcutaneous fat areas measured by computed tomography between patients with IHA and APA by gender. We also compared visceral and subcutaneous fat areas between patients with IHA and APA by the presence of obesity, BMI  $\geq 25$  kg/m<sup>2</sup> (the diagnosis criteria by Japan Society for the Study of Obesity).

**Results:** In consistent with previous reports, BMI was significantly higher in patients with IHA than those with APA. However, in male patients, no difference of BMI between IHA and APA was observed. By contrast, in female patients, not only BMI but also both visceral and subcutaneous fat areas were significantly higher in IHA than in APA. Next,

we investigated the contribution of visceral and subcutaneous fats in the positive association of obesity with IHA in female patients. Subcutaneous fat area but not visceral fat area was significantly higher in female obese patients with IHA. By contrast, visceral fat area but not subcutaneous fat area was significantly higher in female non-obese patients with IHA.

**Conclusions:** These results suggest that obesity, especially subcutaneous fat accumulation, contributes to the pathogenesis of IHA in female patients.

## Thyroid

### THYROID NEOPLASIA AND CANCER

#### *Quality of Life in Patients with Papillary Thyroid Microcarcinoma According to the Treatment: Total Thyroidectomy Versus Total Thyroidectomy with Radioactive Iodine Remnant Ablation*

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#### MON-494

**Background:** Recently, the role of radioactive iodine (RAI) ablation in the treatment of low risk differentiated thyroid carcinoma (DTC), especially for papillary thyroid microcarcinoma (PTMC), is controversial. This study aims to compare quality of life (QoL) parameters in patients with PTMC underwent total thyroidectomy (TT) versus TT with RAI ablation.

**Methods:** In this cross-sectional study, patients with PTMC who underwent TT with/without RAI remnant ablation were prospectively enrolled between June 2016 and October 2017. All patients completed three questionnaires: 12-item short-form health survey (SF-12), thyroid cancer specific quality of life (THYCA-QOL), and fear of progression (FoP). **Results:** The TT and TT with RAI groups comprised 107 and 183 patients, respectively. The TT with RAI group had significantly lower serum TSH level than TT group. However, after matching of TSH level between the groups (TT with RAI = 100, TT = 100), there was no significant difference in baseline characteristics. According to the SF-12, the score for general health showed significantly lower in TT with RAI group than TT group ( $p = 0.047$ ). The THYCA-QOL also showed statistically significant difference in felt chilly score between the groups ( $p = 0.023$ ). No significant differences in FoP scores were seen between the groups.

**Conclusion:** Patients with PTMC underwent TT with RAI ablation experienced more health-related problems than those managed by TT alone. These findings support RAI ablation should be carefully determined in patients with low-risk DTCs.

## Neuroendocrinology and Pituitary

### NEUROENDOCRINOLOGY AND PITUITARY

#### *Diagnostic Value of Copeptin in Central Diabetes Insipidus*

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