100x(weight-nadir/(preoperative weight-nadir)). Analysis: t-test, ANOVA, linear mixed model repeated measures by SAS.
**Results**: N=21, 85% female with mean age 43±10 years. The groups (WR and without-WR) were significantly different with respect to BMI (WR:38.6±7.6 vs without-WR:30.3±3.5, p=0.02) and in overall insulin secretion (WR AUC 6289±3432 vs without-WR AUC 3025±2089, p=0.04) despite similar time since surgery. We observed a reduced cortisol and GDF15 response among the WR group after SG versus without WR. The GDF15 response to MTT between the groups differed after 60 mins where a steady increase in secretion was observed in both groups; however more pronounced in the without-WR group p<0.05. The serum cortisol increased differently from 0 to 60 minutes ~7 ug/dL,p=0.05) and ~3 ug/dL in the both groups respectively, afterwards the curve decline rate was also different between the groups with a faster decline in the without-WR group. The WR group displayed a flat cortisol response vs without-WR group. In addition, among the all subjects after adjustment for cortisol, demographics, time, group, insulin, glucose, time*group, one unit increase in serum cortisol was associated with an increase in GDF15 (4.70;95%CI: 0.69-8.71ng/L).
**Conclusion:** We suggest that GDF15 is regulated by cortisol in subjects with weight regain, elevated insulin secretion and blunted meal-induced cortisol response, indicative of HPA dysregulation. Further investigation is needed to examine the role of GDF15 and cortisol in WR after bariatric surgery.

# Thyroid

## BENIGN THYROID DISEASE AND HEALTH DISPARITIES IN THYROID I

### *Impact of Glucocorticoid Cosecretion in Primary Aldosteronism on Thyroid Autoantibody Titers During the Course of Disease*

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**SAT-LB76**
Context: Excess aldosterone is associated with the increased risk of cardio- and cerebrovascular events as well as metabolic comorbidities not only due to its hypertensive effect but also due to its proinflammatory action. Autonomous cortisol secretion (ACS) in the setting of primary aldosteronism (PA) is known to worsen cardiovascular outcome and potentially exhibit immunosuppressive effects.The aim of this study was to determine the impact of ACS status in patients with PA on kinetics of thyroid autoantibodies (anti-TPO, anti-TG) pre and post therapy initiation.
Patients and Methods: 97 PA patients (43 with unilateral, 54 with bilateral PA) from the database of the German Conn's Registry were included. Anti-TPO and anti-TG levels were measured pre and 6 to 12 months post therapeutic intervention. Patients were assessed for ACS according to their 24h urinary cortisol excretion, late night salivary cortisol and low-dose dexamethason suppression test.
Results: Abnormal test results in line with ACS were identified in 74.2% of patients. Significant increases in anti-TPO levels were observed in adrenalectomized patients with at least one abnormal test (p = 0.049), adrenalectomized patients with at least two pathological ACS tests (p = 0.015) and adrenalectomized patients with pathologic dexamethasone suppression tests (p = 0.018). No antibody increases were observed in unilateral PA patients without ACS and in patients with bilateral PA receiving mineralocorticoid antagonist therapy.
Conclusion: ACS appears to be a relevant factor in PA affecting thyroid autoimmune disease. The biochemical and clinical course maybe be exacerbated after resolution of hypercortisolism by adrenalectomy in PA.

# Thyroid

## NO LONGER A PAIN IN THE NECK — RECENT INSIGHT INTO THYROID GROWTH, DEVELOPMENT, AND PATHOLOGY

### *Assessment of Long Term Quality of Life According to Treatment Options in Low Risk Papillary Thyroid Microcarcinoma Patients - Active Surveillance or Immediate Surgery, (A Follow up Interim Analysis of Maestro)*

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**OR28-06**
**Background:** The Multicenter Prospective Cohort Study of Active Surveillance on Papillary Thyroid Microcarcinoma (MAeSTro) started in June 2016. As a follow-up study of comparing the quality of life (QoL) of the active surveillance (AS) and immediate surgery (OP) groups at 8 months

(9.3±4.8 and 7.1±4.2 months, respectively), here we aimed to compare the QoL between the AS and OP groups after 18 months (22.8±4.0 and 22.3±4.3 months, respectively) of follow-up.
**Methods:** QoL of 108 participants who chose AS, 101 who underwent OP, twelve who changed from AS to OP was evaluated using a thyroid-specific QoL questionnaire at diagnosis and during follow-up (median 23 months).
**Results:** The mean ages of the participants in the AS and OP groups were 47.7±11.0 and 45.1±10.0 years (p=0.075), respectively. At baseline, better physical (8.2±1.4 vs. 7.6±1.8, p=0.032), psychological (7.4±1.2 vs. 6.7±1.6, p=0.010), and total health (7.4±1.0 vs. 6.7±1.3, p=0.005) were observed in the AS group than in the OP group. After a mean follow up of 22.7±4.2 months, better physical (8.1±1.5 vs. 7.4±1.7, p=0.008), psychological (7.7±1.3 vs. 7.0±1.5, p=0.002), and total health (7.5±1.2 vs. 6.8±1.3, p=0.001) were observed in the AS group than in the OP group, whereas spiritual health was comparable between the two groups: compared with the AS group, the OP group experienced more alterations in appetite, sleep, menstrual cycle, voice, motor skill, weight, appearance, cold or heat tolerance, and body swelling. Furthermore, better QOL scores were observed in the AS group in self-concept, personal relationships, sexual life, work motivation, productivity and quality of work, feeling of isolation, driving, doing household chores, preparing meals and doing leisure activities after long term follow up.
**Conclusion:** Patients who underwent AS had better QOL even after long term follow up. Low risk papillary thyroid microcarcinomas do not influence survival, however surgery related deterioration of QOL lasted long and did not improve even in late post-operative stages when patients were fully recovered from surgery.
**Keywords:** Quality of life; papillary thyroid microcarcinoma; active surveillance; immediate surgery

# Neuroendocrinology and Pituitary
## PITUITARY TUMORS I

### *Discordant Biological Parameters of Remission in Acromegaly Do Not Increase the Risk of Hypertension or Diabetes: A Study With the Liege Acromegaly Survey Database*

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**SAT-LB60**
**Introduction:** Acromegaly is a rare disease due to growth hormone (GH)-secreting pituitary adenoma. GH and IGF-1 levels are usually congruent, indicating either remission or active disease, however a discrepancy between GH and IGF-1 may occur. We aimed to evaluate the outcome of acromegalic comorbidities in patients with congruent GH and/or IGF-1 levels vs discordant biochemical parameters. **Methods:** Retrospective analysis of the data of 3173 patients from the *Liège Acromegaly Survey* (LAS) allowed to include 190 patients from 8 tertiary referral centers across Europe, treated by surgery, with available data concerning diabetes mellitus (DM) and hypertension (HT) both at diagnosis and at last follow-up. We recorded for all the patients the number of antihypertensive and antidiabetic drugs used at the first evaluation and at last follow-up. **Results**: Ninety-nine patients belonged to the REM group (Concordant parameters), sixty-five patients were considered as $GH_{dis}$ and 26 patients were considered as $IGF\text{-}1_{dis}$. At diagnosis, 63 patients (33.1%) had HT and 54 patients had DM (28.4%). There was no statistically significant difference in terms of number of anti-HT and anti-diabetic drugs at diagnosis versus last follow-up (mean duration=7.3+/-4.5years) between all 3 groups. **Discussion:** The results highlight that the long-term outcome of acromegaly does not tend to be more severe in patients with biochemical discordance in comparison with patients considered as in remission on the basis of concordant biological parameters, suggesting that patients with biochemical discordance do not require a closer follow-up.

# Neuroendocrinology and Pituitary
## HYPOTHALAMIC-PITUITARY DEVELOPMENT AND FUNCTION

### *Molecular Investigation of Recessive Inheritance by Exome Sequencing of Patients With Congenital Hypopituitarism*

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**SAT-LB58**
***Background:*** Growth hormone deficiency (GHD) occurs in ~ 1/8000 individuals, and 14% of the patients have mutations in five major candidate genes. However, over 30 genes have been implicated in hypopituitarism. WES (Whole Exome Sequencing) is a promising approach for molecular diagnosis of patients with GHD because it offers the opportunity to screen for all known genes in