

prolactinoma after high prolactin levels (77.65, normal 2.64-13.13 ng/mL). Cabergoline was started without any clinical improvement. She then was referred to our service for follow-up. TSH results showed 500 mIU/L, with low fT4 (0.08 ng/dL). Prolactin levels was normal. Pituitary MRI revealed diffuse enlargement of the gland, with compression of infundibulum and optic chiasm. Treatment was modified to levothyroxine/liothyronine 100/20mcg 1 ½ tablet qd. After 7 months, we confirmed normal TSH (0.76 mIU/L) and fT4 (1.23 ng/dL), and the patient was asymptomatic. After 17 months, new MRI showed normal pituitary gland without any compression.

**Case 3:** A 23-year-old female with a history of Addison's disease and hypothyroidism diagnosed at age 17 presented with a 6-month history of somnolence, fatigue, headache and amenorrhea. She was previously treated with hydrocortisone 25mg/day, fludrocortisone 0.1mg/day, and levothyroxine 200mcg/day. Patient's adherence was bad, and multiple hospitalizations because of adrenal crises were reported. Her initial hormonal evaluation revealed high TSH of 460 mIU/L and low fT4 of 0.25 ng/dL, mild hyperprolactinemia (32.16 ng/mL), and very high ACTH levels (2,700 pg/mL, normal 10-100). Pituitary MRI revealed an enlarged pituitary with mild compression of the optic chiasm. Hormonal replacement was modified to fasting levothyroxine alternating 200mcg and 300mcg qd. Her last follow-up showed normal TSH (0.53 mIU/L) and fT4 (1.18 ng/dL) levels. New MRI showed normal pituitary size

**Conclusion:** We presented three young women, with autoimmune hypothyroidism, who developed pituitary hyperplasia and responded to proper hormonal replacement normalizing pituitary size.

**Reference:** Endocrinol Diabetes Metab Case Rep. 2015; 2015: 150056.

## Adipose Tissue, Appetite, and Obesity OBESITY TREATMENT: GUT HORMONES, DRUG THERAPY, BARIATRIC SURGERY AND DIET

### *Changes in Eating Frequency but Not in Food Quality During Time Restricted Eating: Analysis from the See Food Study*

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#### MON-606

Time-restricted eating (TRE) is a form of intermittent fasting that has gained interest in nutrition research and interventions as one of the dietary patterns to promote weight loss and other metabolic benefits. TRE is an eating pattern in which all nutrient intakes occur within a few hours (< 12 hours) every day, with no overt attempt to alter nutrient quality or quantity. The "See Food" study was a randomized, unblinded, controlled, behavioral interventional pilot clinical trial conducted from 2017-2018, that aimed to study the effect of a TRE intervention on metabolic

health of overweight and obese participants, using the help of novel digital mobile technology. The objective of the current study is to analyze changes in diet quality among participants of the "See Food" study. Specifically, food intake patterns (frequency and type of meals, snacks and beverages) were compared between subjects in the 8-hour TRE intervention group, versus the unrestricted intake control group. Inclusion criteria included age 18-65, BMI >25 kg/m<sup>2</sup>, had stable sleep and work schedule and owned a smartphone. Participants with diabetes, cardiovascular disease, uncontrolled pulmonary disease, pregnancy and nursing were excluded. A total of 20 participants with overweight or obesity (9 in control group and 11 in TRE group) were enrolled. Participants were instructed to use the "myCircadianClock" smartphone application to document their time of eating, type of meal and food images at baseline and during the intervention period of 14 weeks. The TRE group was instructed to consume calories within 8 hours each day. We compared the data between 14 days at baseline and 14 days at the end of the intervention. An eating occasion (EO) as defined as an occasion when a food or beverage (other than water) was consumed, and was separate from another EO by at least 15 minutes. Compared to baseline, both the TRE (3.8±0.4 vs 5.3±0.4, p<0.0001) and control group (4.9±0.4 vs 5.6±0.5, p=0.007) had less eating frequency. The TRE group had less eating frequency compared to control group (-1.5±0.2 vs -0.6±0.2, p=0.01) at the end of the study. Meal quality was classified by meal or snack type using a food-based classification system, and included 6 Eos ranging from a complete meal, to a low-quality snack. Beverages were classified separately by type. There were no differences in meal quality between the TRE and control group. The TRE group had less frequency of high-quality snack (-0.5±0.1 vs 0.05±0.1, p=0.008), mixed quality snack (-0.03±0.06 vs -0.3±0.07, p=0.01) and caffeinated beverage (-0.6±0.09 vs -0.008±0.1) compared to the control group. Conclusions: There was a reduction in eating frequency but no change in food quality when following an 8-hour TRE. Estimation of calories intake was limited in this study. A strength of the study is the use of a novel mobile app to track timing of meals. This would be feasible to implement in a real life setting.

## Adipose Tissue, Appetite, and Obesity ADIPOSE TISSUE BIOLOGY AND OBESITY

### *Role of Adipocyte Hyperplasia and Hypertrophy in the Release and Charge of Exosomes in Human Fat Cells.*

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#### SAT-590

In obesity, the increase in the number and / or size of adipocytes leads to chronic low-grade systemic inflammation that conditions the development and evolution of a series of pathologies such as coronary heart disease or cancer. The change from hyperplasia to hypertrophy has been characterized by the expression of early and late adipogenic