

MEETING ABSTRACT

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# Diabetes and weight gain after bariatric surgery, due to Cushing's syndrome

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## Background

The term Cushing's syndrome (SC) describes a condition resulting from prolonged exposure to excessive glucocorticoids. The routine use of abdominal image procedures has significantly increased the incidental finding of adrenal masses. A documentation of the presence of endogenous hypercortisolism is made with salivary, urinary or serum cortisol measurements, using samples collected with appropriate timing and/or after the use of low doses (1mg) of dexamethasone.

## Materials and methods

E.A.R, 45 yrs. old, female, referred to our Service in 2013, due to the presence of a tumor in right adrenal discovered in abdominal TC. This exam was realized as a routine AFTER bariatric surgery (BS) in 2004. She told us that she lost 40 Kg after surgery. However, in 6 months her weight gained 20Kg with no clear reason. Increased blood pressure and hyperglycemia appeared. She related pain in limbs, alopecia and amenorrhea, a year ago. In use of: Losartan 100mg/day, Spironolactone 200mg/day, Carvedilol 25mg/day, Aspirin 100mg/day, Simvastatin 20mg/day, Omeprazol 20mg/day, Furosemide 40mg/day. Physical exam: Weight: 89Kg, height: 1,58m, BMI: 35,6Kg/m<sup>2</sup>, WC: 116cm, Blood pressure: 200x120mmHg, HR: 104bpm. Proximal muscle weakness, abdominal striae, moon face, hump back, blurred vision, neurological, musculoskeletal, skin and hearing alterations. Results: A1c: 8% (N<5.7), TSH: 0,7mUI/L (N: 0,3-4,2), ACTH: 18,8pg/mL (N: 7,2-63,3), basal cortisol: 24,5mcg/mL (N: 7-28), Aldosterone: 7ng/dl(4-31), androstenedione: 1,5ng/dl (N: 0,8-4,4), catecholamins: 319mcg/24hs (N: 190-450),

urinary cortisol: 1089mcg/24hs(N: 10-90), DHEA: <15mmol/L (N: 0,7-6,75), estradiol: 19,6ng/dl (N: <3), renine: 4,9ng/mL/h (up, N: 1,5-5,7), testosterone total: <12pg/mL (N: 0,3-2,5), FSH: 11mUI/mL (menopause N: >30), LH: 12,1mUI/mL (N: >15), prolactin: 10,3mcg/L (N: 2-15), suppression test after 1mg of dexamethasone >cortisol: 22,48mcg/dl (N<1,8). We started Metformin 1700mg/day, Cetoconazol 800mg/dia and Insulin NPH 40UI/day. Referred to surgery.

## Conclusion

Since undiagnosed CS might result in severe perioperative complications in patients already at increased risk, this case report underlines the importance of a careful endocrine evaluation of morbidly obese patients. Obese subjects scheduled for BS may reveal undiagnosed dysfunctions that require specific therapy and/or contraindicate the surgical treatment. Such Results may help to define the extent of the endocrinological screening to be performed in obese patients undergoing BS.

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