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TITLE

RESISTIN AND ADIPONECTINE SECRETION PATTERN AFTER GnRH STIMULUS IN PATIENTS WITH FUNCTIONAL HYPOTHALAMIC AMENORRHEA.

AUTHOR/S

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ABSTRACT

Context

Patients diagnosed with FHA, presents complex of endocrine and metabolic disturbances which are consequences of disturbed GnRH hypothalamic secretion. Some patients with secondary amenorrhea are believed to represent both: FHA and PCOS pathologies. Adiponectin (A) functions as anti-inflammatory, anti-atherogenic, cardioprotective, and insulin-sensitizing hormone. Resistin (R) is positively linked with inflammation, cardiovascular risk, obesity and IR.

Objective

The aim of the study was to assess the episodic secretion of A and R in FHA patients before and after exogenous GnRH stimuli.

Methods

The following parameters were available for each participant: age, body mass index (BMI), blood pressure, menstrual history, hormonal data (FSH, LH, estradiol, testosterone [T], DHEAS) and metabolic data (fasting glucose and insulin, lipid profile).

Patients

13 women (aged 24 $\pm$ 3) with FHA

Interventions

GnRH stimulation test with blood withdrawal according to the schedule: 0', 15' 30' 45' 60' 90' with

Main Outcome Measures

FSH, LH, A, R serum concentrations.

Results

All patients responded with increase of LH and FSH secretion after GnRH. We divided them depending on concentration of LH after 30' to groups: A – with increase $<15\times$ of the basic concentration and group B – with increase $\geq 15\times$. Group A showed lower mean basic concentrations of A and R in comparison to group B. Moreover in group A we found a significant decrease of A after 30' and R after 45' and from GnRH injection, in comparison to basic concentrations. We failed to find any specific pattern of A and R secretion in group B. There was positive correlation between FSH and A/R ratio in 60' of GnRH

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stimulation test.

Conclusions

Measuring A and R after GnRH injection in patients with secondary amenorrhea potentially may differentiate FHA patients from those with FHA/PCOS overlapping syndrome.