Effect of the Treatment of Central Precocious Puberty on the Anthropometric Measurements, Comparison Between the Leuprolide Acetate (LA) and Triptorelin Depot (TD)

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Objectives:

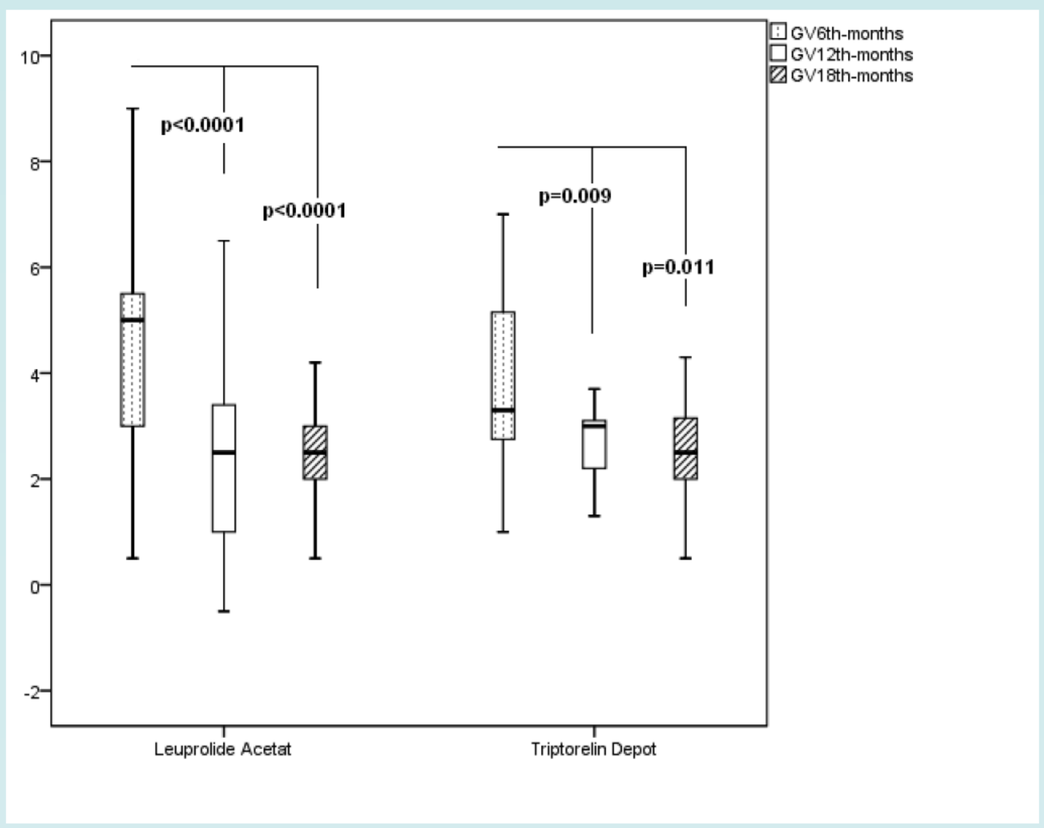
The GnRH-agonists are the drugs of choice for therapy of idiopathic central precocious puberty (ICPP). To assess two different GnRH-agonist (LA vs TD) treatment effects on anthropometric measurements.

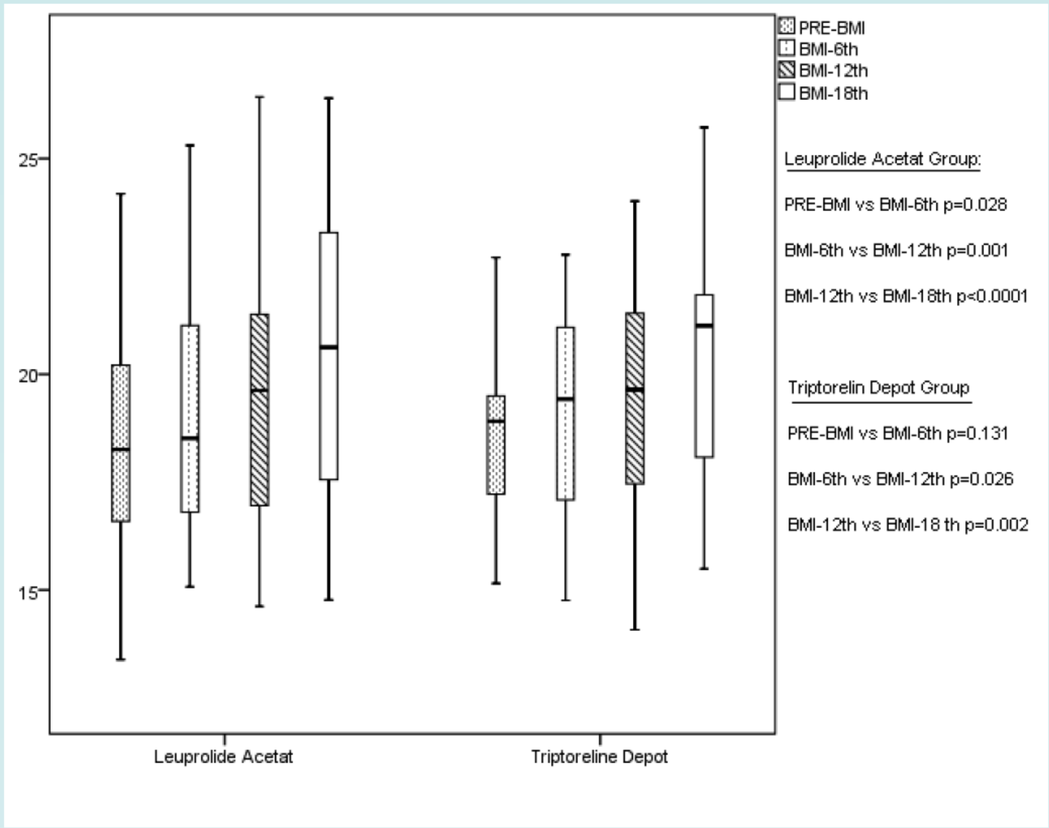
Methods:

74 girls with ICPP (mean age 33.8±8years) were included in the study.
Complaints had been begun before 8 years old.
50 girls underwent GnRH stimulation test.
58 girls with ICPP were followed up 18 months.
Children were treated with LA (n:42) or TD (n:32) 3.75 mg/q4wk.
The dose had to be increased 7.5 mg/q4 wk in 15 patients.
Hormonal data, and height, weight, BMI and growth velocity (GV also) of the children with ICPP were recorded before (PRE) and during the therapy.

Results:

Pelvic ultrasound findings and basal hormone levels were given in Table 1. At the admission thelarche was a major complaint (60/74) and 9 girls had menarche. Bone age (BA) (LA:10.4±1.9 years vs TD: 9.1±1.8 years) and peak LH (LA: 14.8 (19.37) IU/mL vs TD: 8.56 (8.2) IU/mL) was significantly different in both groups. Left ovarian volumes [LA:2.0 (2.92) mL vs TD: 1.71(1.81), p:0.03] were significantly different in both groups. GV at 6th was significantly different from GV at 12th months of the therapy in both groups (Figure1). BMI gradually increased after 6 th, months of therapy (Figure2).
GnRHa dose was significantly correlated with BMI at during therapy in LA group.





Conclusions:

An initial dose of both GnRHa 3.75 mg/4 wk was efficient in most girls with ICPP. If this dose would be increased, patients would have a tendency having increased BMI. Clinicians should be alert of obesity risk in children treated with GnRHa.

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