

Menstruation Patterns in Idiopathic Central Precocious Puberty (ICPP) Girls after Discontinuing Gonadotropin-Releasing Hormone Agonist (GnRHa) Therapy



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Background: Gonadotropin releasing hormone (GnRH) agonist has been used in treatment of idiopathic central precocious puberty girls (ICPP) for more than 20 years. However, the menstruations pattern after discontinuation of treatment has been rarely reported.

Objective: To evaluate menstrual patterns in ICPP girls after discontinuing GnRH agonist therapy and compare with control with normal onset of puberty

Methods: Menstrual diary was recorded for 3 consecutive months by ICPP girls after discontinuation of treatment and normal healthy girl was a control group.

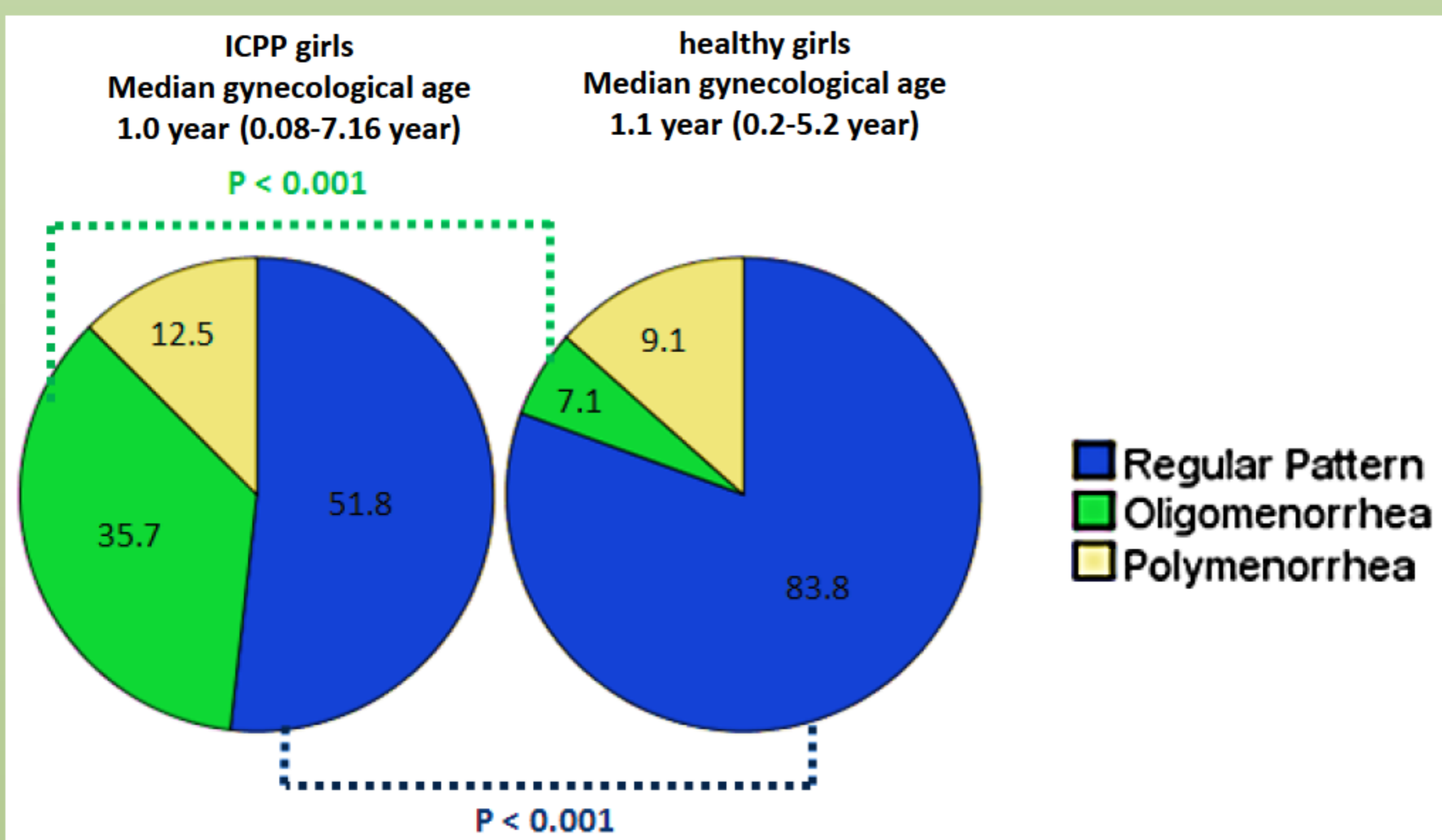


Figure 1. Menstrual patterns (%) in ICPP girls and healthy girls with normal onset of puberty

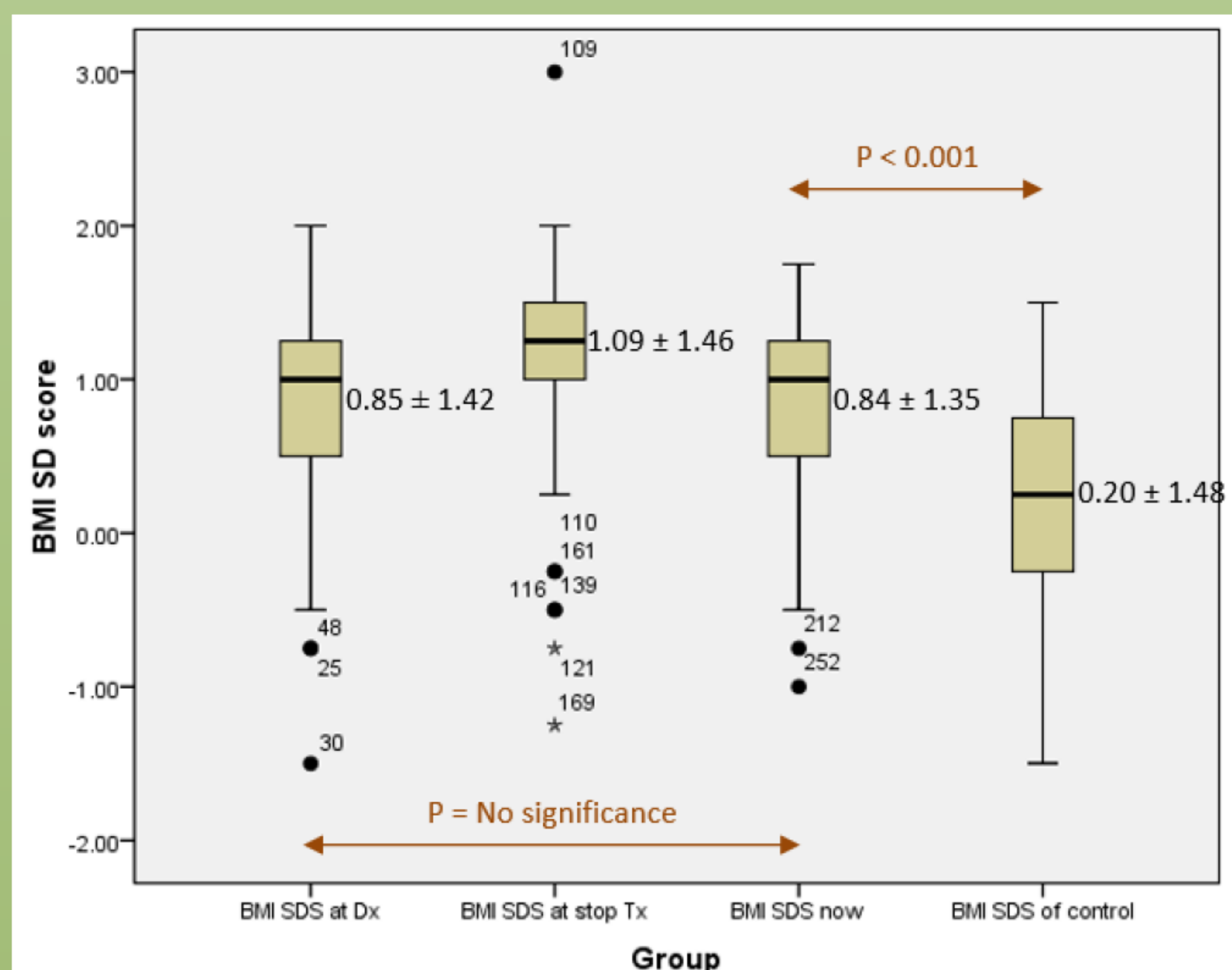


Figure 3. BMI SDS during and after treatment compare with normal onset of puberty girls

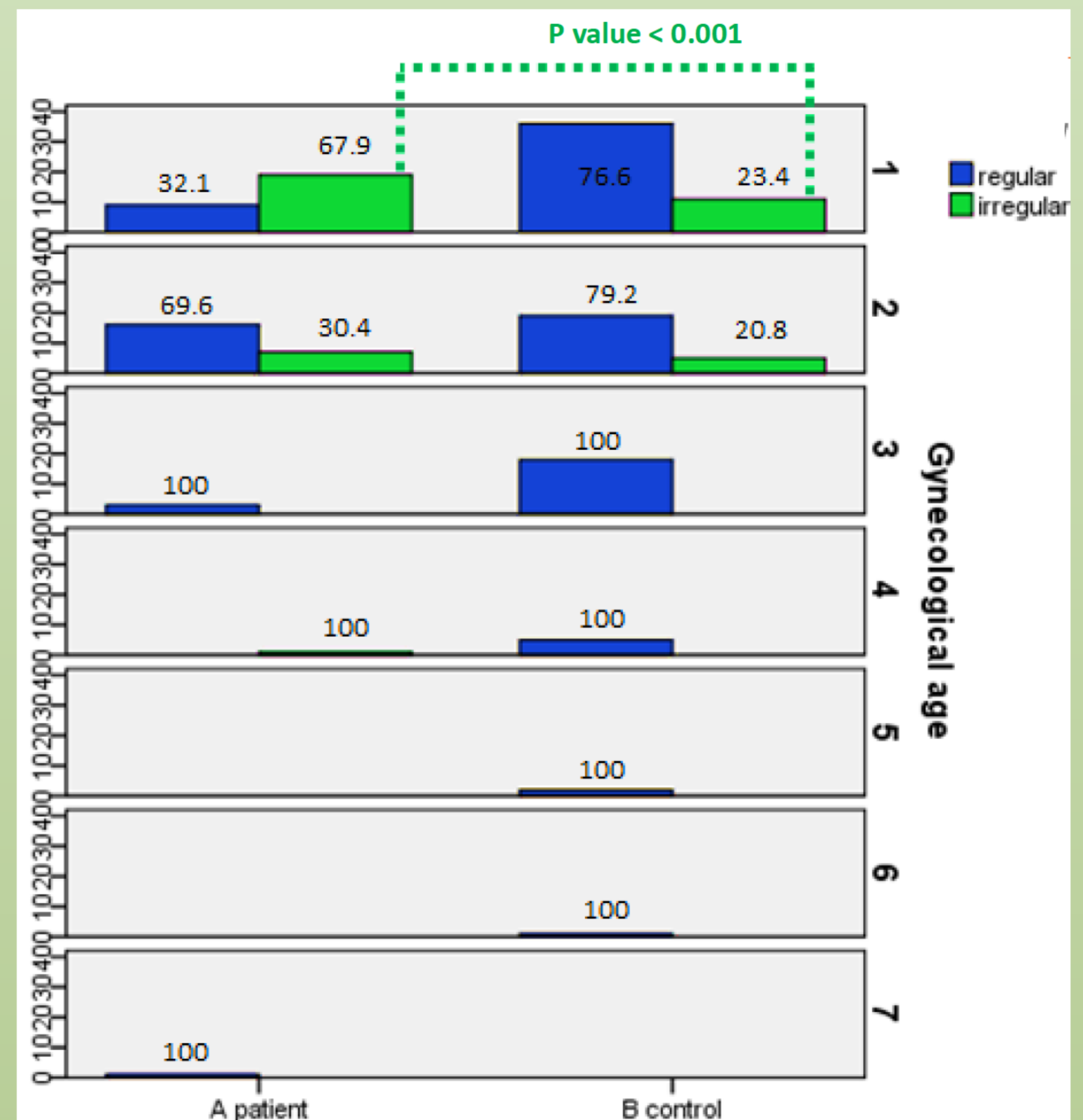


Figure 2. Menstrual patterns by gynecological age (%) in ICPP girls and healthy girls with normal onset of puberty

Results:

Sixty-two ICPP girls were treated with GnRHa 3.75 mg subcutaneous injection every 4 weeks at a mean age of 7.9 ± 1.5 yr. The duration of treatment was 2.3 ± 1.6 yr. Menstruation developed at 14.0 ± 6.0 months after discontinuing GnRHa therapy at a mean age of 11.8 ± 1.5 yr. Normal healthy girls had a mean menarcheal age of 11.3 ± 2.0 yr. The percentage of subjects with irregular menstrual pattern was significantly higher in ICPP girls than the control group (67.9% vs 23.4%, $P < 0.001$) during the first gynecological year but this was not different in the second gynecological year (30.4% vs 27.8%). Final BMI SDS in ICPP girls was significantly higher than that of control (0.84 ± 1.35 vs 0.2 ± 1.48 , P value < 0.001) but not reach over weight criteria

Conclusions: Irregular menstrual patterns in ICPP girls previously treated with GnRH agonist therapy are observed only during the first gynecological year.