

Menstrual Regularity among Early Menarche girls and girls treated with GnRHa

CHEN Qiu-li, LI Yan-hong, SU Zhe, MA Hua—mei, CHEN Hong-shan,
Zhang Jun, DU Min-lian

Objective:

We assessed in a retrospective unicenter study the effect on menstrual regularity of early menarche and treatment with Gonadotropin-releasing hormone analogs (GnRHa) in central precocious puberty (CPP) or early and fast puberty (EFP) girls.

Methods:

Six hundred and ten healthy girls were interviewed and their menarche age and menstrual interval were recorded. One hundred and sixty-nine CPP or EFP girls who were treated with GnRHa were followed up, and their menarche age and menstrual interval were also recorded.

Results:

The menarche age of 610 healthy girls were 12.3 ± 1.0 years. One hundred and twenty-nine girls among all healthy girls (21.1%) and 10 among 44 early menarche girls (22.7%) had irregular menstruation. There were no significant difference between them. The ratio of dysmenorrhea were 41.1% in normal girls and 50.0% in early menarche girls. The difference were not significant.

The menarche age of 113 CPP girls and 56 EFP girls who were treated with GnRHa were 12.2 ± 1.0 years. Fifty-three among them (31.4%) had irregular menstruation, which were higher than healthy girls ($P < 0.05$) and were similar with early menarche girls ($P > 0.05$). Fifty-seven among them (33.7%) were dysmenorrhea, which had no significant difference with healthy girls and early menarche girls.

Table 1 Menstrual regularity of control group and GnRHa treatment group

	Control group				GnRHa treatment group
	Early menarche	Normal menarche	Late menarche	total	
number	44	522	44	610	169
regular	34 (77.3%)	432 (82.8%)	33 (75.0%)	481 (78.9%)	116 ^b (68.6%)
irregular	10 (22.7%)	90 (17.2%)	11 (25.0%)	129 (21.1%)	53 ^b (31.4%)
oligomenorrhea	8 (18.2%)	72 (13.8%)	8 (18.2%)	106 (17.4%)	44 ^b (26.0%)

a: Early menarche or Late menarche vs Normal menarche $P < 0.05$;

b: GnRHa treatment group vs Control group $P < 0.05$.

Conclusion:

The ratio of irregular menstruation in early menarche girls was slightly higher than normal girls, but not significant. CPP and EFP girls with GnRHa treatment had a significant higher irregular menstruation rate than normal girls. It was probably because of premature puberty plus GnRHa treatment, rather than because of GnRHa treatment alone. Early menarche and GnRHa treatment did not affect the ratio of dysmenorrhea.