

# One Year Follow-up of Children with Asymptomatic Precocious Puberty : clinical and laboratory characteristics.

Eun Mi Cho, Kyung Mi Jang and Cheol Woo Ko<sup>1</sup>

<sup>1</sup>Kyungpook National University Children's Hospital, Pediatric Endocrinology, Daegu, Korea, Republics of,

## Background

Children with bone-age advancement without any pubertal sign (asymptomatic precocious puberty, asymptomatic PP) were reported (CW Ko, et al, at the Annual Meeting of ESPE, 2012 and 2013)

## Methods

Among children who visited to predict their final adult heights between July 2007 and May 2014, children with significant bone-age advancement(> 1 year) without any pubertal sign were enrolled. Their clinical and laboratory data including GnRH stimulation were analyzed at the time of diagnosis. In order to see their start of pubertal signs and changes of laboratory characteristics including GnRH stimulation test, forty-seven and thirty-four children with asymptomatic PP were followed-up at 6 and 12 months later, respectively.

## Results

Table I Auxological Data of Study Patients with Asymptomatic Precocious Puberty

	Boys	Girls	Total
No. of pt	11	42	53
CA (year)	10.0 ± 1.1	7.9 ± 1.8*	8.5 ± 1.5
BA (year)	11.8 ± 1.2	9.6 ± 1.5*	10.0 ± 1.7
BA-CA (year)	1.8 ± 0.8	1.4 ± 0.8	1.5 ± 0.6

Figures indicate mean ± SD.  
\*: p < 0.001 (compared with Boys)

Table II Frequencies of Positive GnRH Stimulation Tests (peak LH ≥ 5 mIU/mL) in Children with Asymptomatic Precocious Puberty

	Boys (n=11)	Girls (n=42)	Total (n=53)
GnRH(+)	8/11 (73%)	12/42 (29%)	20/53 (38%)
GnRH(-)	3/11 (27%)	31/42 (71%)	34/53 (62%)

Figures indicate numbers of patients.

## Conclusions

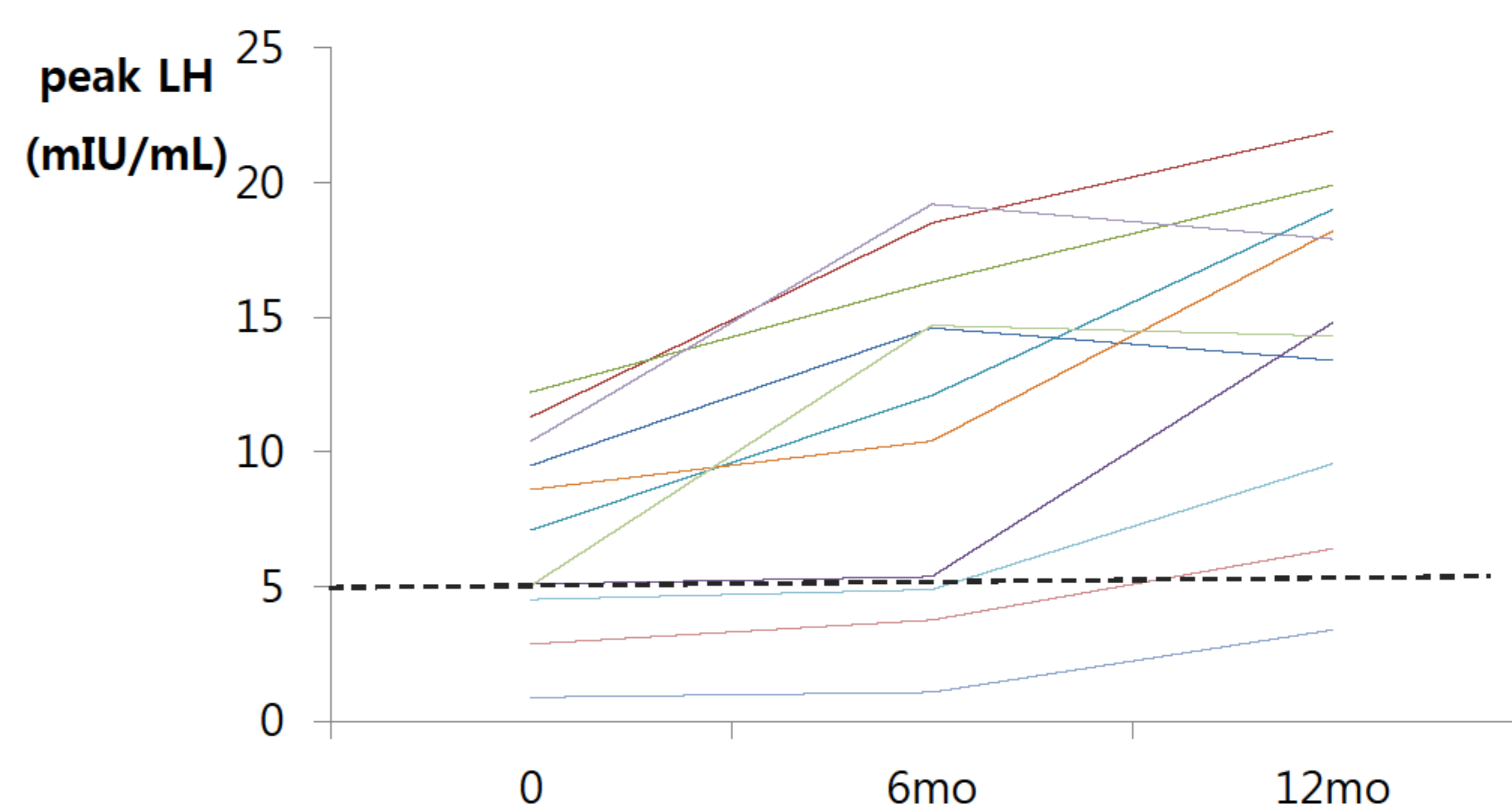
Boys with bone-age advancement without any pubertal sign should be closely followed-up. Long-term observatory study is necessary in terms of need for GnRHa treatment and final height

Table III

Appearance of Secondary Sexual Characteristics in Children with Asymptomatic Precocious Puberty according to Lapse of Time

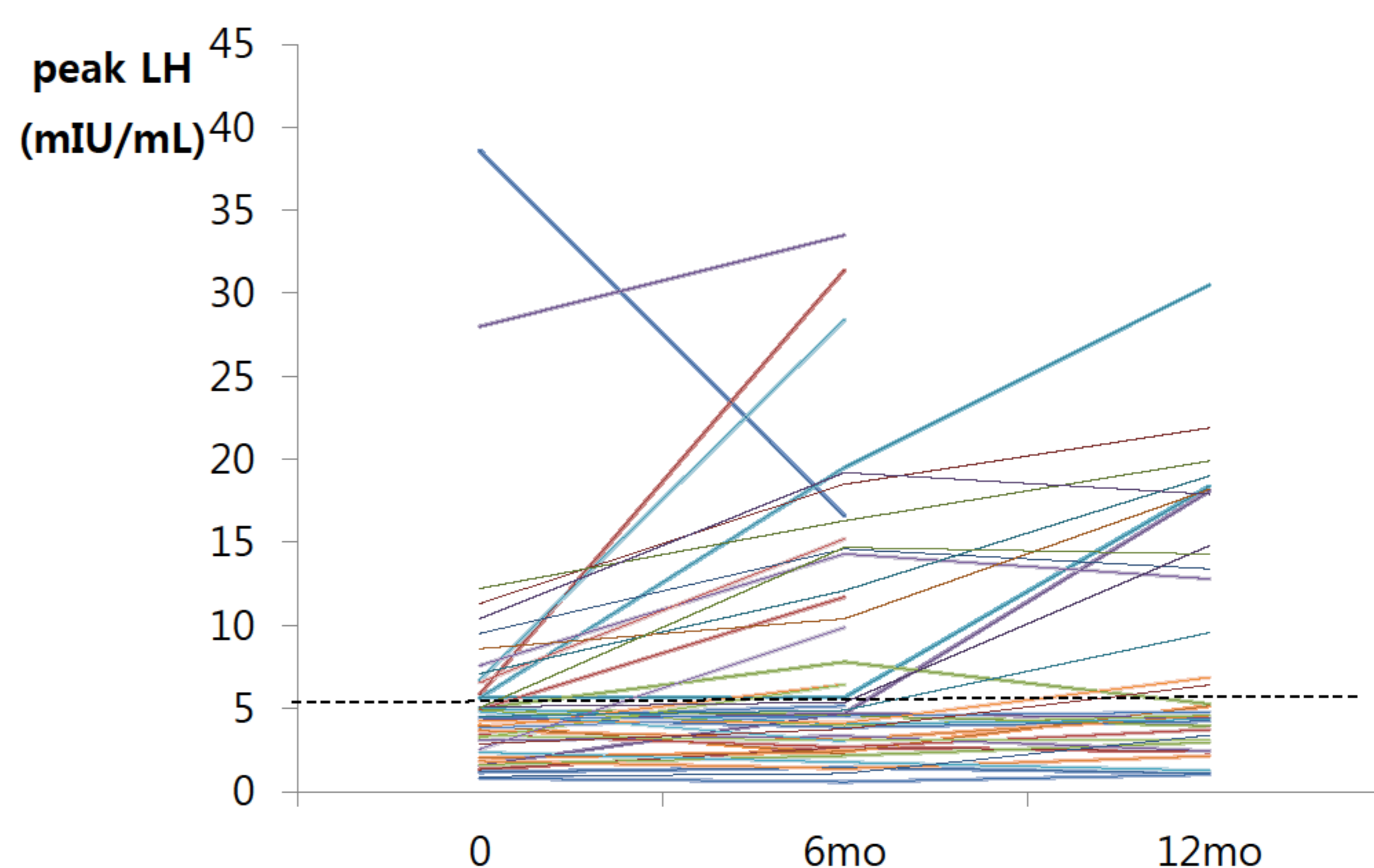
	At diagnosis	6 month	12 month
Boys	0/11 (0%)	5/11 (45%)	11/11 (100%)
Girls	0/42 (0%)	15/36 (42%)	21/32 (66%)

Figure I



Changes of peak LH (mIU/mL) in Boys with Asymptomatic Precocious Puberty according to Lapse of Time. Majority of boys with asymptomatic precocious puberty shows high peak LH values above 5 mIU/mL during study period of one year.

Figure II



Changes of peak LH (mIU/mL) in Girls with Asymptomatic Precocious Puberty according to Lapse of Time. Majority of girls with asymptomatic precocious puberty shows low peak LH values below 5 mIU/mL during study period of one year.

