Aim: Evaluate the data of anamnesis, clinical-laboratory parameters, magnetic resonance imaging (MRI) findings, response to treatment in children with hyperprolactinemia (HProlect) in Belarus.

Methods: We analyzed retrospectively 16 patients in the endocrinological department of University hospital (Minsk) with HProlect over 2004-2012 yrs. Boys (B) 6 (37.5%) (stage on Tanner1 - 1(17%); stage2-3 - 3(50%), stage4 - 2(33%), age at diagnosis 11.4-15.9 yrs; girls (G) 10(62.5%) (stage on Tanner 1-3(30%), stage2- 3 - 2(20%), stage4 - 5(50%), age at diagnosis 0.8-16.4 yrs. We examined body mass index (BMI); the levels of prolactin; MRI. The results were processed using the Statistica 6.1.

Results: In anamnesis B: breast increasing 4(66%), delayed puberty 1(17%); G: precocious thelarche 3(30%), dismenorrhoea 2(20%), galactorrhoea 1(10%), delayed puberty 1(10%), headache 1(10%). BMI B 22.4±1.3 kg/m², G - 22.1±1.5 (p=0.1). Prolactin B 49.8±3.9, G 48.9±4.2 (3-27.7 ng/ml) (p=0.6). MRI confirmed the presence of microadenoma in 4(66%) B and 5(50%) G.

4(66%) B and 4(57.2%) G received treatment with bromocriptine (1.25-2.5 mg/day). 3(42.8%) G were treated with cabergoline (500 micrograms/week). Normal prolactin levels were noted in all B after 8.7±3 month of treatment. G which received bromocriptine normal prolactin were after 3±1.7 month, cabergoline - 4±2 (p=0.1).Tumor decreasing from 5 till 3 mm by MRI were in all B and G after 9.6±2.5 month and 4.7±2.5 respectively.

Conclusions: HProlect syndrome is rare in children in Belarus. Most common it occurs in girls with the development of precoicois thelarche and menstrual cycle alterations. All cured patients with HProlect demonstrated a good response to medical treatment by normalization of prolactin values and decreasing of tumor.