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

Methods: We analyzed retrospectively 16 patients in the endocrinological department of University hospital (Minsk) with HProlact over 2004-2012 yrs. Boys (B) 6 (37,5%) (stage on Tanner 1 - 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: HProlact syndrome is rare in children in Belarus. Most common it occurs in girls with the development of precocious thelarche and menstrual cycle alterations. All cured patients with HProlact demonstrated a good response to medical treatment by normalization of prolactin values and decreasing of tumor.