Objective: to examine the system production of growth factors and apoptosis in adolescents with abnormal uterine bleedings (AUB).

Methods
The investigation was carried out in 2 groups of adolescents: I - 132 girls with AUB, II - 20 healthy girls (control). Measuring of serum concentration of free form (f) of IGF-1, fVEGF, TNF - ?, soluble receptors - sTNFRI, sFas, sFasL and caspase-8 was carried out.

Results
The increased levels of fIGF-1 and decreased fVEGF in I group were found (compared with control). It is possible that endometrial hyperplasia and abnormal folliculogenesis are associated with increased fIGF-I levels, as indicated by the established correlation between fIGF-1, M-echo thickness and diameter follicules.

The increasing of sTNFRI is possible to reduce the TNF-? levels, which was confirmed by our studies. This indirectly specifies on the apoptosis blocking at the stage of induction.

In the I group the contents of sFas and sFasL were lower than in controls that specifies on the expressed oppression of apoptosis in patients with AUB. It is known that sFas blocks, and sFasL initiates apoptosis. sFas/sFasL index exceeded values of the control group that points out to the parity disturbance in sFas-sFasL system with the displacement of final effect towards apoptosis blocking in patients with AUB.

The highest serum level of caspase-8 was in the control group that evidenced about weak initiation of effector stage of apoptosis in patients with AUB.

Conclusion
Distinction in system production of fVEGF in patients with AUB, having equally high fIGF-1 and hyperandrogenia, possibly, is one of the basic components of endometrium hyperplasia and pubertal AUB pathogenesis. The revealed deficiency of apoptosis factors at both stages can have pathogenetic value in formation of reproductive system pathology in puberty shown in the form of AUB.