ABNORMAL UTERINE BLEEDING IN ADOLESCENTS: AN ULTRASOUND EVALUATION OF INTERNAL GENITALIA

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Introduction: Abnormal uterine bleeding (AUB) in adolescents is defined as asynchronous, excessive, prolonged, or frequent uterine bleeding after menarche and is a common manifestation of immature hypothalamic-pituitary-ovarian axis. This condition is usually associated with anovulatory cycles and relative hyperestrogenemia, which is a physiological state of female puberty.

Aim: The study was aimed to evaluate ultrasonographic measurements of internal genitalia in girls suffering from AUB and to compare it to girls with normal menstrual cycle - the control group.

Material and methods: Totally 105 girls were included to this study: 67 AUB and 38 healthy age-matched control group adolescents. All the girls underwent pelvic ultrasound to evaluate internal genitalia. Uterine volume was calculated including and then excluding endometrial thickness, in order to avoid the influence of endometrium on uterine size.

Results: The mean age of the participants was 14.95±1.65, age at menarche - 12.24±1.23, gynecological age - 2.81±1.74 years. Uterine volume among AUB girls was significantly larger than in control group. Mean uterine volume including endometrium was calculated to be 63.15±24.84 and 47.80±17.53 cm³ respectively (p<0.001), excluding endometrium - 34.65±13.14 and 29.09±13.75 cm³ (p=0.043). We did not find any significant difference in ovarian volume between the groups.

Conclusion: The AUB girls have significantly larger uterine volume, than healthy girls. This finding does not depend on endometrial thickness. It is probably caused by relatively high levels of estrogen which take part in growth of uterus. Since all the girls go through relative hyperestrogenemia during their puberty, we consider that other not yet known factors, which are responsible for uterine growth, should exist. Alterations in these factors can lead to disordered menstrual cycle later in life.