

# Assessment of initial investigation requested in adolescents with menstrual disorders

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## Background

Menstrual disorders are common among the adolescent girls. We examined the initial investigations performed in adolescents, presenting with frequent, heavy or painful periods. Although, usually abnormal uterine bleeding (AUB) in adolescent women is attributable to immaturity of the hypothalamic-pituitary-ovarian axis, underlying conditions such as coagulation disorders and anemia should always be kept in mind. However, neither the laboratory nor the ultrasound investigation reveals any pathology related to AUB or dysmenorrhea.

## Objective

To assess the value of laboratory and sonographic findings in girls with menstrual disorders, attending an adolescent gynecologic clinic. Data were collected on clinical presentation and investigation requested and results were available.

## Results

134 patients were identified, presenting either with dysmenorrhea, heavy or frequent bleeding or combination of both, during an 8 month period (Graph 1). Patients with oligomenorrhea were excluded. Average age was 14,9 years. Most of the patients experienced regular menstruation, whereas, there was a significant proportion (19, 9%) mentioning irregular periods.

59 patients (44%) had a full blood count test, however only in 12 cases there was a remarkable decrease in hemoglobin value (Graph 2). Of note, none of the remaining mentioned any symptoms of anemia. 46 girls had had thyroid testing within normal range, except one case of hypothyroidism.

4 patients had known blood clotting disorders ( ITP and Von Willebrand ) who surprisingly were not anemic. Coagulation tests had already been held in 13 other girls, revealing no pathology.

In terms of imaging, 62 patients had a scan (46,2%). 9 girls had typical PCOM appearance (6,7%) and other 5 ( 3,7%) had other incidental u/s findings unrelated to menstrual disorders. (Graph 3)

There were 13 girls with severe learning difficulties which contributed negatively to their general condition.

Another girl with persistent pelvic pain was diagnosed with endometriosis after laparoscopic investigation.

## Conclusions

Ultrasound scans are currently a key component in the diagnosis of abnormal uterine bleeding. This study suggests that they do not finally contribute to the management and diagnosis of causes hidden behind menstrual disorders in adolescence. Ultrasound and clotting investigation should be kept only for menstrual disorders refractory to medication.

Overmedicalization and overinvestigation may cause anxiety for the girl and family but also has cost to health care service. Taking detailed history is essential and may prevent rigorous investigation. Adolescent health education is determining to create awareness regarding menstrual disorders. Reassurance that menstrual disorders in adolescence are a normal and transient condition should be offered by primary physicians.

