

**Undetectable hemoglobin in a patient with chronic uterine bleeding**

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Dear Editor,

Abnormal uterine bleeding in perimenopause is the commonest presenting complaint encountered in gynecology. This condition requires rapid diagnosis and treatment. In women with heavy or chronic bleeding, laboratory tests are very important for the diagnosis of anemia (1). Severe anemia is frequent in women with voluminous or intracavitary myoma, resulting in urgent medical care or blood transfusion (2). Uterine fibroids are often associated with abnormal uterine bleeding. Symptomatic fibroids remain a common indication for hysterectomy in women who have completed their family (1).

We present the case of a 47-year-old woman who was referred to the Gynecology Department of Filantropia Clinical Hospital, Bucharest in August 2018 with chronic uterine bleeding, pale skin, fatigue, and tachycardia. Medical history revealed a chronic treatment with Euthyrox 125mg/day after a thyroidectomy for multinodular goiter. The patient presented to the emergency room independently, conscious with chronic excessive vaginal bleeding. Clinical examination revealed abdominal distension, with a voluminous irregular palpable mass, with increased consistency extending up to umbilical region. Transvaginal ultrasound examination revealed a voluminous leiomyoma 280/18mm and a left ovarian cyst 70/60mm. Complete blood count revealed undetectable hematocrit and undetectable hemoglobin (Hb) (two determinations – Hb under detection level, erythrocyte indices could not be determined). Complete blood count was

performed using Convergys X5 analyzer (Convergent Technologies, Colbe, Germany). Hb analysis was performed spectrophotometrically, with limit of detection of 1.3 g/dL. According to the manufacturers' instructions, the limit of detection for platelets was 10,000/mm³ and 40,000/mm³ for red blood cells. We proceeded with urgent blood transfusion and one unit of packed red blood was administered. The patient was admitted and monitored in the gynecology unit. Another blood sample was carried out in 3 hours after blood administration that revealed a microcytic hypochromic anemia with Hb of 3g/dL, average red blood cell size (MCV) of 78.5 and mean hemoglobin amount per red blood cell (MCH) of 21.4 pg/cell, hematocrit 11%, white blood cells (WBC) 5,200/μL, platelets (PLT) 102,000/μL. Under these circumstances, we opted for another transfusion with 4 units of packed red blood, in order to improve the hematological status. After the second transfusion, the patients had Hb of 8.9g/dL, WBC 13,700/μL, hematocrit 28.7% and PLT 160,000/μL. Endometrial biopsy was performed and the patient was informed about the surgical treatment possibilities. Three weeks later, we performed in accordance with the patient decision, a total hysterectomy with bilateral salpingo-oophorectomy under general anesthesia. The histopathological examination showed multiple myomas and a simple endometrial hyperplasia. Our patient signed an informed consent.

We reported an extremely rare case of patient with undetectable haemoglobin due to uterine symptomatic myomas. Severe anaemia that is well tolerated (<4g/dL) is uncommon in patients with chronic bleeding (3,4). The literature only reports few cases of severe anemia in out-patients with different etiologies. Imaizumi et al. report-

ed the case of a patient with Hb of 1.8 g/dL, from urinary bleeding, despite gastrointestinal bleeding, the most common cause of anemia (4-6).

Rob et al. report the case of a patient with 1.8g/dL due to a secondary colon cancer (7). Panse et al. presented the case of a patient with severe anemia (Hb 1.8g/dL) from chronic uterine bleeding (8). Rapid treatment was necessary to improve hematological status.

The particularity of our case was the low value of hemoglobin due to chronic blood loss, in a patient with symptomatic multiple uterine myomas. Interestingly, the patient referred herself to the Gynecology Department with chronic uterine bleeding, pale skin, fatigue, and tachycardia. This case adds to previous three out-patients who survived with a Hb <2 g/dL.

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Resources: RC, NG

Data Curation: RC, NG, NDP, AMP

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Abbreviations

Hb – haemoglobin

RBC - red blood cells

WBC – white blood cells

PLT - Platelet

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