Mood and anxiety disorders in patients with abnormal uterine bleeding

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ABSTRACT

Objective: We aimed to investigate the prevalence of mood and anxiety disorders in patients with abnormal uterine bleeding (AUB) and the relationship between mood and anxiety disorders and AUB.
Method: 96 consecutive patients with *not* yet classified AUB based on the PALM-COEIN classification and 94 volunteers were included in the study. Mood and anxiety disorders were ascertained by means of the Structured Clinical Interview for the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition/Clinical Version.
Results: Out of 96 patients, 55 (57.3%) met the criteria for at least one diagnosis of mood and anxiety disorder. The most common psychiatric disorders in patients with AUB were major depression ($n = 15$, 15.6%), generalized anxiety disorder ($n = 18$, 18.8%) and obsessive compulsive disorder ($n = 22$, 22.9%), respectively. Compared with the control group, the prevalence of any psychiatric disorder ($x^2 = 43.52$, $p = 0.000$), any mood disorder ($x^2 = 10.37$, $p = 0.001$) and any anxiety disorder (*Fisher's exact test*, $p = 0.000$) was higher in patients with AUB. The presence of any mood and anxiety disorder was an independent risk factor for AUB.
Conclusion: Mood and anxiety disorders, particularly major depression, generalized anxiety disorder and obsessive-compulsive disorder were frequently observed in patients with AUB.

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Introduction

Depression is a disorder that can cause significant deterioration in a patient's ability and mortality [1]. It is observed twice as frequently in females compared to males [2,3]. In spite of this, the underlying neurobiological mechanisms that may explain these differences have not yet been clarified [4]. The hypothalamo–pituitary–gonadal axis is thought to be implicated in this difference. For example, noteworthy increases in major depression are seen during the transition to menopause as well as in the postpartum phases when there are changes in the levels of gonadal hormones [5–8].

Abnormal uterine bleeding (AUB) is defined as an abnormality in the frequency, regularity, amount or duration of menstrual bleeding. AUB is one of the most common gynecological complaints and may include up to one-third of all patients admitted to outpatient clinics [9]. AUB may arise from various causes such as topical or systemic diseases or therapies [10]. The most common etiologic factors in non-pregnant women include uterine structural abnormalities (fibroids, endometrial polyps, adenomyosis), anovulation, bleeding disorders or neoplasias [10]. To address the impairment and confusion in the terminology, the FIGO classification system (PALM-COEIN) was released in 2011. The PALM-COEIN classification system includes structural pathology of abnormal uterine bleeding (PALM: ployp, adeno-myosis, leiomyoma, malignancy and hyperplasia), non-structural pathologies (COEI: coagulopathy, ovulatory dysfunction, endome-trial, iatrogenic) and *not* yet classified (N) [11].

Most of the studies conducted on menstruation include polycystic ovarian syndrome (PCOS) and premenstrual syndromes [12–15]. Prevalence of psychiatric disorders in PCOS patients has been reported to vary between 15.4 and 56.9% [12–14]. To the best of our knowledge, no studies have yet examined the relationship between psychiatric disorders and 'not yet classified' (according to

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PALM-COEIN) AUB. Therefore, in this study, we aimed to investigate the relationship between AUB and mood and anxiety disorders in patients with 'not yet classified' AUB.

Method

The study was conducted with 96 consecutive patients who applied to the Department of Obstetrics and Gynecology, Mevlana University School of Medicine, with complaints of menstrual irregularity and were diagnosed according to the FIGO classification system (PALM-COEIN) in the 'not yet classified' category of AUB. The inclusion criteria were as follows: (1) age between 20 and 45 years (2) menstrual irregularities continuing for at least 3 months. The exclusion criteria of the study were as follows: (1) Age less than 20 or greater than 45 years (2) presence of chronic medical conditions such as diabetes mellitus, hypertension, and hyperlipidemia (3)

diagnosis of polycystic ovarian syndrome (4) presence of chronic endocrine disorders such as hyperprolactinemia, hyperthyroidism, hypothyroidism, Cushing syndrome (5) presence of structural uterine pathologies such as polyps, adenomyosis, leiomyoma, malignancy and hyperplasia (6) menstrual irregularities related to coagulopathy, ovarian dysfunction or endometrial and iatrogenic causes (7) use of hormone based birth control measures such as oral contraceptives and Norplant or birth control through the use of RIA (8) use of psychotropic drugs such as antidepressants, anxiolytics or antipsychotics for any reason in the last 3 months. The control group included hospital personnel with no medical training, relatives of these staff members, and various other individuals from the general population. Participants in the control and patient groups were matched with respect to sociodemographic characteristics. The flow chart indicates the inclusion and exclusion criteria for patients and control group volunteers (Fig. 1).
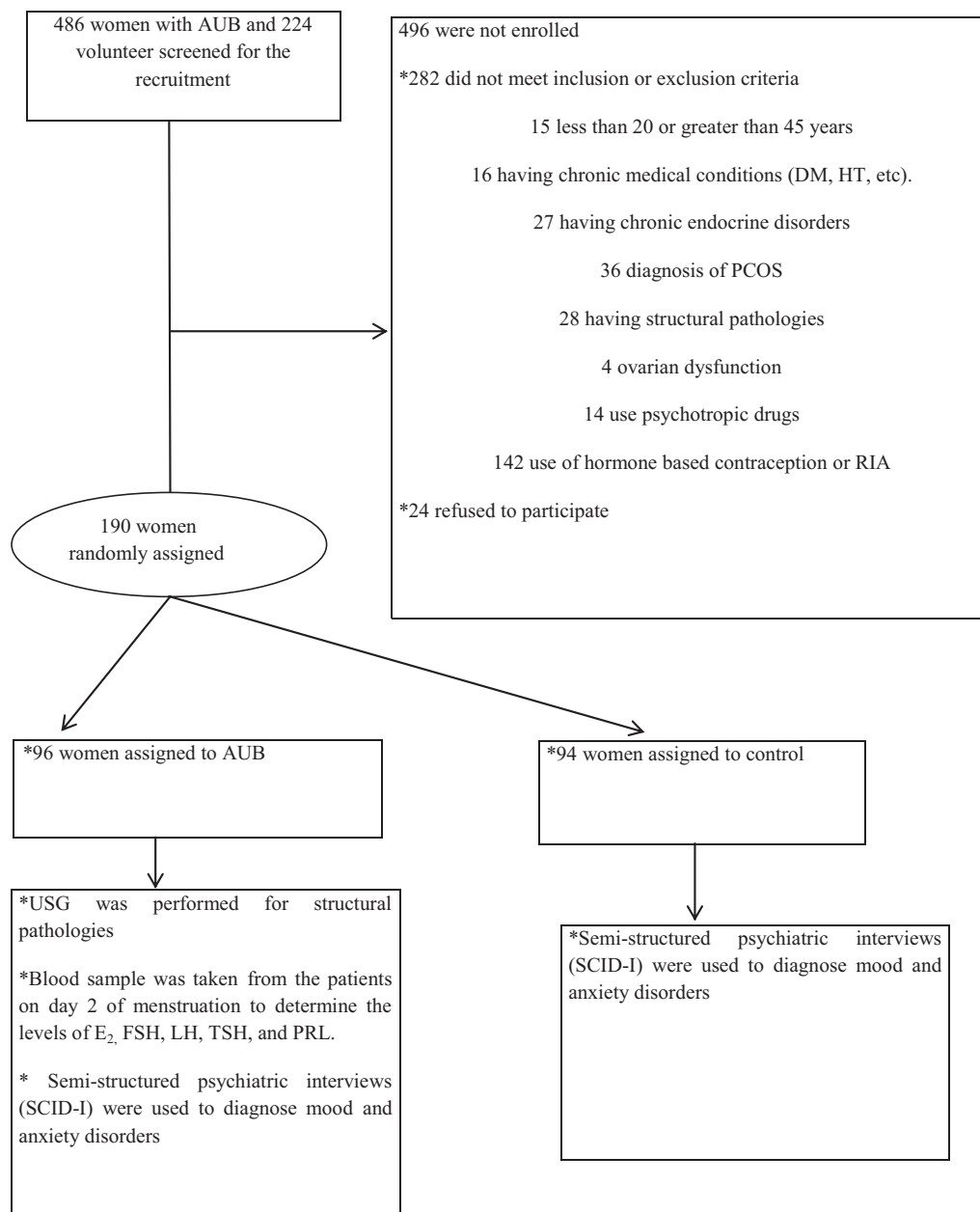

Fig. 1. Flow chart of the participants throughout the trial.