

Adenomyosis among samples from hysterectomy due to abnormal uterine bleeding in Ahwaz, southern Iran

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Abstract

Introduction: Adenomyosis is one of the most common, yet underdiagnosed, underlying causes of abnormal uterine bleeding (AUB). We aimed to evaluate the prevalence of adenomyosis among subjects who underwent hysterectomy due to AUB.

Materials and Methods: We studied the pathological specimens from 100 cases of AUB who underwent hysterectomy and were referred to Jundishapur University of Medical Sciences, Ahwaz (Iran) from 2007 to 2010. All specimens were reviewed by the same pathologist.

Results: Pathological findings included adenomyosis 21%, leiomyoma 30%, adenomyosis and leiomyoma 21%, adenomyosis and other pathological causes 7%, and other pathological causes 21%. The overall prevalence of adenomyosis was 49%. Mean age of the patients was 46.9 ± 7.8 years and the highest frequency of adenomyosis was observed in the age group 30–60 years.

Conclusions: Overall prevalence of adenomyosis in the population with AUB (49%) that we studied was higher than that in the reports from other populations. Occurrence of isolated adenomyosis in those aged less than 30 years was rare, and adenomyosis was usually accompanied by other lesions.

Key Words: Abnormal uterine bleeding, adenomyosis, hysterectomy

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Received: 03.04.2012, Accepted: 30.04.2012

INTRODUCTION

Abnormal uterine bleeding (AUB) is one of the most common causes of referrals to gynecologists. AUB affects women as a large portion of the population and results in a significantly high morbidity rate.

Moreover, AUB is one of the common presentations of endometrial hyperplasia, which is a precancerous lesion, and even adenocarcinoma. Furthermore, it is a presentation of other uterine tumors, although with lower frequency. Thus, identifying the etiology of AUB and the prevalence of the disorders that are presented with this clinical sign is important.^[1,2]

One of the underlying causes of AUB is adenomyosis, which is a benign uterine disease defined as the downward growth of endometrial basal layer into the myometrium. Although various methods such as ultrasound scan and magnetic resonance imaging have shown high levels of accuracy for the noninvasive diagnosis of adenomyosis,^[3,4] hysterectomy and

Access this article online	
Quick Response Code:	Website: www.advbiores.net
	DOI: 10.4103/2277-9175.100156

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How to cite this article: Mobarakeh MD, Maghsudi A, Rashidi I. Adenomyosis among samples from hysterectomy due to abnormal uterine bleeding in Ahwaz, southern Iran. *Adv Biomed Res* 2012;1:49.

microscopic evaluation of the samples are still the only ways of definite diagnosis of adenomyosis.^[5] Some nests composed of endometrial stroma, its glands, or both can be observed inside myometrium among muscle bundles. In random microscopic cross sections, the relationship between these nests and their covering endometrium can be confirmed. Uterine wall thickening is observed due to the presence of endometrial tissue and reactive endometrial hypertrophy.^[6]

It is necessary to investigate the etiology of AUB to select the most appropriate method with the least adverse effects for diagnosis and treatment. Hence, the objective of this study is to evaluate the frequency of adenomyosis in women with AUB who underwent hysterectomy in university hospitals of Ahwaz, Iran.

MATERIALS AND METHODS

This cross-sectional study was carried out on pathological specimens of the consecutive AUB patients who underwent hysterectomy. The specimens were referred to the pathology ward of two teaching hospitals of Ahwaz (Iran), from June 2007 to June 2010. All specimens were reviewed by the same pathologist and adenomyosis was diagnosed based on histological characteristics.^[6] Then, the overall prevalence of adenomyosis, prevalence in each age group, and association with other pathological lesions were determined.

RESULTS

During the study, 100 samples from the AUB patients who underwent hysterectomy were evaluated. The age range of the patients was 21–75 years, with the mean age of 46.9 ± 7.8 years. The pathological reports of the specimens were as follows: adenomyosis 21%, leiomyoma 30%, adenomyosis accompanied by leiomyoma 21%, adenomyosis accompanied by other pathological causes 7%, and other pathological causes 21% [Figure 1]. Among the patients, 3%, 90%, and 7% were in the age ranges of <30, 30–60, and 60–90 years, respectively. In general, adenomyosis alone was not observed in the age range of <30 years. In the age ranges of 30–60 and 60–90 years, 19 (90.47%) and 47 (95.53%) cases of adenomyosis were found, respectively [Figure 2]. In the age range of 30–60 years, 47 (95.91%) cases of adenomyosis were found. The overall prevalence of adenomyosis, leiomyoma, and other pathological causes were 49%, 30%, and 21%, respectively.

DISCUSSION

Because adenomyosis is one of the most common

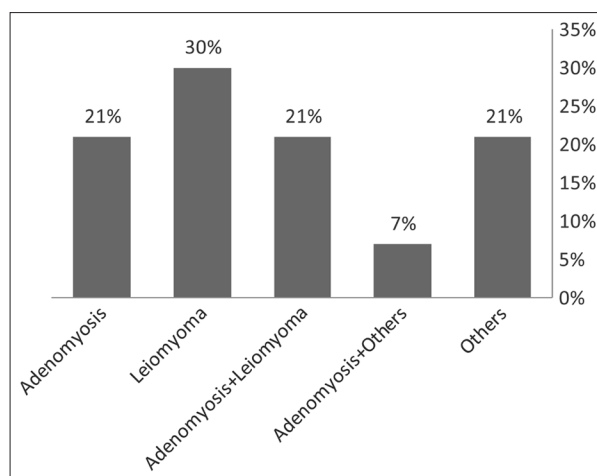


Figure 1: Overall frequency of pathological lesions in the specimens

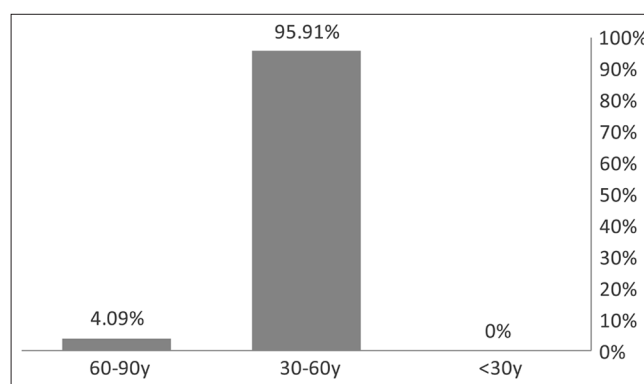


Figure 2: Overall frequency of adenomyosis in different age ranges

underlying causes of AUB, for more appropriate diagnosis and treatment of the patients, it is necessary to determine the prevalence of adenomyosis, the age group with the highest prevalence, and most frequent accompanying pathological causes. In a cross-sectional retrospective study carried out on 182 postmenopausal women who underwent hysterectomy, Kim and Strawn^[7] reported that the uterine samples of 64 patients out of the 182 participants (35.2%) had adenomyosis. These patients were in the age range of 25–52 years. Evidence showed that adenomyosis mostly occurs in multiparous women, in the age range of 40–50 years, and mostly associated with leiomyoma and endometrial polyps.^[6] In the current study, adenomyosis was mostly prevalent in the age range of 30–60 years, which was in agreement with the findings of previous studies. The overall prevalence of adenomyosis (with or without accompanying pathological lesions) was determined to be 49%, which was, however, higher than those of the previous reports.^[6,7]

In our study, leiomyoma was the most frequent lesion accompanying adenomyosis. In previous studies, leiomyoma and endometrial polyps were reported to

be the most frequent accompanying lesions, as well.^[6] Adenomyosis alone under the age of 30 years is rare, and the lesion occurs in association with other lesions in this age range. The most common age range for the occurrence of adenomyosis alone in our study was 30–60 years, and the most frequent accompanying lesion was leiomyoma.

CONCLUSION

According to our results, it can be summarized that the overall prevalence of adenomyosis in the population with AUB we studied was determined to be about 50%. The occurrence of adenomyosis alone under 30 years is rare, and adenomyosis is usually accompanied by other lesions. Gynecologists must pay attention to adenomyosis as one of the most common underlying causes of AUB. Therefore, in cases of AUB without any important ultrasonographic lesions, patients can be medically treated to delay hysterectomy. Moreover, in the postmenopause period, the patient can be observed if there is no annoying symptom or hemorrhage. However, these approaches need further prospective cohort studies.

ACKNOWLEDGMENT

This study was supported by Jundishapur University

of Medical Sciences. We are also thankful to Dr. Ali Gholamrezaei for editing this report.

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Source of Support: Jundishapur University of Medical Sciences., **Conflict of Interest:** None declared.