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Original Research Article

A retrospective study of the clinical features of 50 consecutive cases diagnosed to have adenomyosis by histopathology in hysterectomy specimens in a tertiary centre

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ABSTRACT

Background: Adenomyosis is characterised by the presence of ectopic endometrium, both glands and stroma deep in myometrium. Myometrial weakness caused by previous surgery or pregnancies, genetic factors, and tamoxifen use has been proposed as some aetiological factors.

Methods: Present study aims to study the clinical profile of patients who have histological evidence of adenomyosis in hysterectomy specimens. The records of consecutive patients who had undergone hysterectomy were analysed.

Results: The commonest age group affected is 41-50 years and menorrhagia is the predominant symptom. The preoperative diagnosis of adenomyosis remains poor at around 8%.

Conclusions: The age of onset and clinical features of patients should serve as an index for suspecting adenomyosis.

Keywords: Adenomyosis, Dysmenorrhea, Hysterectomy, Menorrhagia

INTRODUCTION

Adenomyosis is characterized by presence of ectopic rests of endometrium both glands and stroma located deep in myometrium.¹ Mechanisms that incite the deep myometrial invasions are myometrial weakness caused by prior pregnancies or surgery, decreased immunologic activity at endometrial-myometrial interface.¹ Various other etiologies proposed are genetic factors, tamoxifen use and hyperprolactinemia.^{2,3} Alternate theory is that it is caused by metaplasia of pluripotent mullerian tissue.¹ Preoperative diagnosis of adenomyosis remain poor and it is suggested that adenomyosis is solely an incidental finding at hysterectomy for benign disease and not the source of typical symptoms.⁴ The incidence of adenomyosis reported in literature in hysterectomy specimens is 50-70%.⁵ The specificity of preoperative

diagnosis based on clinical picture is poor ranging from 2.6-26%.⁶ Average age of symptomatic women is usually older than 40 years.⁷ Increasing parity, early menarche and short menstrual cycles may all be risk factors according to one study.⁷ The main symptoms are menorrhagia (40-60%), dysmenorrhea (10-30%) and metrorrhagia (10-12%).^{8,9} Menorrhagia possibly results from increased and abnormal vascularisation of the endometrial lining¹. Dysmenorrhea is thought to be due to increased prostaglandin production found in adenomyotic tissue.¹ Parity and age are significant risk factors.

90% cases are seen in parous women and 80% in women who are in their 40s and 50s.¹ Adenomyosis is associated with pathologies that affect cytochrome p 450 aromatase expressions and higher oestrogen levels like leiomyoma, endometriosis and endometrial carcinoma.¹

METHODS

The study was performed to evaluate the clinical profile of patients who have histopathological diagnosis of adenomyosis in hysterectomy specimens. This descriptive study was done in 50 patients in the Department of OBG at Sree Mookambika Institute of Medical Sciences during the period March 2014 to May 2015. 256 patients underwent hysterectomy during this period. 50 patients with features of adenomyosis on histopathological examination were included. The medical records of these patients were reviewed for information regarding age, parity, chief complaints and clinical diagnosis.

All patients who underwent hysterectomy both abdominal and vaginal, for any complaints were included in the study. Specimens with malignancies were excluded from the study group. Sections of uterus were stained with haematoxylin eosin stains and examined microscopically. Macroscopically, criteria for diagnosis of adenomyosis were enlarged uterus, a globular and or asymmetrical uterus with dense fasciculated myometrium with cystic areas of haemorrhage.¹⁰ Focal adenomyosis is defined by presence of adenomyoma or lesion localized to one uterine wall.¹⁰ In other cases, it is a diffuse pathology. Microscopically adenomyosis is diagnosed by presence of endometrial glands and stroma in the myometrium, more than one low power field away from the endometrial junction.¹¹

RESULTS

A total of 256 hysterectomy specimens were analyzed during this period. Of these 256 patients, 50 patients had histopathological features of adenomyosis.

Table 1: Distribution of socio-demographic and clinical variables in adenomyosis patients.

Variable	% (N=50)
Age	41-50 years
	40
	51-60 years
	38
Symptoms	61-70 years
	18
	>70 years
	4
Parity	Menorrhagia
	56
	Dysmenorrhea
	48
Pre-operative diagnosis	Chronic pelvic pain
	40
	Uniparous
	22
	Multiparous
	78
	Abnormal uterine bleeding
	32
	Fibroid
	24
	Uterovaginal prolapse
	24
	Post-menopausal bleeding
	14
	Adenomyosis
	8

All patients were above 40 years. 40% were between the age group 41-50 years and 38% in the age group 51-

60years, and 18% between 61-70 years. Prevalence decreased to 4% in the age group more than 70 years. The predominant symptoms were menorrhagia in 56%, dysmenorrhea in 48% followed by chronic pelvic pain in 40%. Most patients were multiparous (78%). Prevalence in uniparous was 22%. The preoperative clinical diagnosis was abnormal uterine bleeding (AUB) in 32%, fibroid in 24%, uterovaginal prolapse in 22% and post-menopausal bleeding in 14% and adenomyosis in only 8% cases.

DISCUSSION

No prospective studies exist on the true prevalence of adenomyosis. In a study by Sheikh, the prevalence for adenomyosis was 20.6%.¹² In another study done in India by Sharqillet al, the prevalence was 26%.¹³ In present study the prevalence was 20% almost consistent with the previous ones. The commonest age group affected in SWANS study was 49.5±3.4.⁴ In Sabins study largest numbers of patients were in the age group 41-50 years i.e. 70%. Only 2% were age group 21-30 and 51-60 years.¹⁴ In present study all patients were above 40 years. Unlike the previous studies almost equal number of patients were affected in the age group 41-50 years (40%) and 50-60 years (38%). 70.5% had menorrhagia as the predominant symptom and 3.92% had post-menopausal bleeding in Khreisats study.¹⁵

In present study menorrhagia was the predominant symptom in 56% closely followed by dysmenorrhea in 48%. Unlike previous studies our study group had 14% patients with postmenopausal bleeding which is much higher. Swans study group had prolapsed as the preoperative diagnosis in 10% cases.⁴ Present study group had prolapsed in 22% cases. In one study the maximum prevalence of adenomyosis is seen in patients with parity index 3.8±2.3 SD and in another one it was 2.7±1.6.^{16,17}

In present study, consistent with previous authors majority (82%) of patients had parity 3 or more. Thus, supporting the hypothesis that pregnancy allows adenomyotic foci to be included in myometrium due to invasive nature of trophoblast. The preoperative diagnosis of adenomyosis is poor ranging from 2.6-26% in previous studies.⁹ In present study clinical diagnosis of adenomyosis was made in only 8% cases (Table 1).

CONCLUSION

Menorrhagia and dysmenorrhea are predominant symptoms of adenomyosis. The prevalence of adenomyosis in present study is 20% consistent with the previous studies. Commonest age group affected is between 41-50 years but almost equal number of patients between 51-60 years are also affected. It is diagnosed in patients with preoperative diagnosis of prolapse and post-menopausal bleeding. The preoperative diagnosis of adenomyosis remains poor at around 8%.

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