

A clinico- Pathological Study of Adenomyosis

BUPATHY ARUNACHALAM , JAYASREE MANIVASAKAN

ABSTRACT

Introduction: Adenomyosis is a myometrial lesion which is characterized by the presence of ectopic endometrium with or without hyperplasia of the surrounding myometrium. A majority of the cases are diagnosed following the histological examination of hysterectomy specimens, but the exact prevalence in the 'normal' population is unknown. More number of cases are being diagnosed, of late. It is being reported even in postmenopausal women.

Objective: To correlate adenomyosis which was diagnosed in hysterectomy specimens with the clinical diagnosis and the patient profile.

Methodology: This was a descriptive study which was carried out from January 2007 to December 2010. The case records of all the patients whose hysterectomy specimens showed adeno-

myosis were studied and analyzed with regards to the clinical profile.

Results: Two hundred and fifty patients were studied. The prevalence of adenomyosis was 23.5%. Eighty percent of the patients were seen in the age group of 31-50 years. Ninety four point four percent of the patients were multiparous. The dominant symptom was menorrhagia (70.4%), followed by dysmenorrhoea (35.6%). Adenomyosis was clinically suspected in 21.2% of the cases.

Conclusion: The occurrence of adenomyosis was seen in an age group with a wide range of 31-50 years in the present study, which was contrary to that which was observed in some studies, which showed the maximum occurrence after 40 years. The parity and the clinical symptoms correlated with those of other studies.

Key Words: hysterectomy, adenomyosis, menorrhagia A clinico- pathological study of adenomyosis

INTRODUCTION

Adenomyosis is a myometrial lesion which is characterized by the presence of an ectopic endometrium with or without hyperplasia of the surrounding myometrium. A majority of the cases are diagnosed following the histological examination of hysterectomy specimens, but the exact prevalence in the 'normal' population is unknown. The percentage of hysterectomy specimens which contain adenomyosis varies from 5-70% [1]. This wide variation may be partly explained by the histological criteria which is used and/or by the number of tissue blocks which are examined. The specificity of the pre-operative diagnosis which is based on the clinical picture is poor, ranging from 2.6-26% [2]. A majority of the cases are reported in women who are aged 40-50 years and there is a positive association with the parity also. The patients with adenomyosis present with menorrhagia (40-50%), dysmenorrhoea (10-30%) and metrorrhagia (10-12%) and, occasionally, dyspareunia or dyschaesia [3, 4].

METHODOLOGY:

In the period from January 2007- December 2010, 1064 consecutive patients underwent hysterectomy at the Sri Manakula Vinayagar Medical College and Hospital. Adenomyosis was diagnosed when the distance from the endo-myometrial junction to the foci of the adenomyosis was more than one low power

field. Two hundred and fifty patients were diagnosed to be having adenomyosis. The medical records in which the histopathological report was adenomyosis were reviewed by the authors and information regarding age, parity, the chief complaints, and the clinical diagnosis obtained. The data was entered in simple tables and was analyzed.

RESULTS

Of the 250 patients, 46.8% were in the age group of 41-50 years, 39.2% were in the age group of 31-40 years and 10.8% were in the age group of 51-60 years. In the extremes of age, the prevalence decreased to 2.4% in the age group of 21-30 years and 0.8% were in the ages of above 60 years. Ninety four point four percent of the patients were multi-parous. A majority of them were of parities 2 and 3. In nulliparous and uniparous women, the prevalence was 2.8%. In women with a parity of ≥ 5 also, the prevalence was found to be decreased (4.4%). The dominant symptom was menorrhagia (70.4%), followed by dysmenorrhoea (35.6%). Only 5.6% of the patients had chronic pain in the abdomen. Adenomyosis was also diagnosed in patients who had complaints of a mass descending per vagina, post-menopausal bleeding and a mass in the abdomen. The pre-operative clinical diagnosis was dysfunctional uterine bleeding in 33.6%, fibroid uterus in 24.4%, adenomyosis in 21.2%, uterovaginal prolapse in 17.2%, post-menopausal bleeding in 2.8% and benign ovarian tumours in 0.8%.

AGE	NO.	%
20-30	6	2.4
31-40	98	39.2
41-50	117	46.8
51-60	27	10.8
>60	2	0.8

[Table/Fig-1]: Age distribution

PARITY	NO.	%
0	7	2.8
1	7	2.8
2	93	37.2
3	102	40.8
4	30	12
5	11	4.4

[Table/Fig-2]: Parity distribution

SYMPTOMS	NO.	%
Menorrhagia	176	70.4
Dysmenorrhoea	89	35.6
Pain lower abdomen	14	5.6
Mass descending PV	46	18.4
postmenopausal bleeding	7	2.8
Mass abdomen	1	0.4

[Table/Fig-3]: Symptoms , There is overlap of symptoms

DIAGNOSIS	NO.	%
Fibroid	61	24.4
DUB	84	33.6
Adenomyosis	53	21.2
Postmenopausal bleeding	7	2.8
Uterovaginal prolapse	43	17.2
Ovarian cyst	2	0.8

[Table/Fig-4]: Clinical diagnosis

DISCUSSION

Various aetiologies have been proposed for the development of adenomyosis, including genetic factors [5], increased

intrauterine pressure as seen in the multipara, prior uterine surgery [6,7], tamoxifen use [8] and hyperprolactinaemia.

The true prevalence of adenomyosis is still unknown. The prevalence of adenomyosis in a study which was done by Shaikh was 20.6 % [9] and it was 20.6% in a study which was done by Ali [10]. Its incidence was shown to be 26 % in India by Sharqill et al [11], 24.9% in Italy by Vercellin [12] and 6% in West Indies by Raju et al [13]. In our study, the prevalence was 23.5%. In a study by Anwar Ali, 73.7% of the patients were found to be between 41-50 years of age, 16.3% were between 31-40 years of age, 1.6% were between 21-30 years of age and 8.1% were of >50 yrs of age [10]. In Swan's study, the mean age of the patients was 49.5± 3.4 [14]. In a study which was done by Sabin, the percentage of the patients in the age group of 41-50 years was found to be 70% and those in the age group of 31-40 years was found to be 25.5%. Only 2% of the patients were diagnosed with adenomyosis between the ages of 21-30 years and 51-60 years [15]. In a study which was done by

Khresiat et al, 94% of the patients were found to be more than 40 years of age [16]. These studies were found to vary from our study in that almost equal numbers of patients were diagnosed with adenomyosis in the age group of 31-40 years and 41-50 years.

In Swan's study, 58% of the patients were found to have complaints of abnormal vaginal bleeding and 10% had prolapse [14]. In Khresiat's study, 64.71% of the patients had dysmenorrhoea, 70.5% had menorrhagia, 3.92% had post-menopausal bleeding, 74.5% had dyspareunia, and 62.75% had chronic pelvic pain [16]. But in our study, menorrhagia was the predominant symptom in 70% of the patients and it was dysmenorrhoea in 35% of the patients. In our study, adenomyosis was seen in 18.4% of patients with prolapse and in 2.8% of patients with post-menopausal bleeding. The menorrhagia may have been due to the dysfunctional contractility of the myometrium in patients with adenomyosis.

In a study which was done by Khresiat, 96% of the patients with adenomyosis had a parity of more than 3 [16]. The maximum occurrence was seen in patients with a mean parity of 3.8±2.3SD in a study [6] and it was 2.7 ±1.6 in another study [7]. In our study, a majority of the patients were of parity 2 or 3. This correlated with the hypothesis that pregnancy may facilitate the formation of adenomyosis by allowing the adenomyotic foci to be included in the myometrium due to the invasive nature of the trophoblasts on the extension of the myometrial fibers.

According to Reinhold, the specificity of the preoperative diagnosis based on the clinical picture was poor, ranging from 2.6–26% [2]. In our study, the clinical diagnosis was fibroid in 24.4%, DUB in 33.6% and adenomyosis was suspected in 21.2% of the patients.

CONCLUSION

The prevalence of adenomyosis is found to be 23.5% in this study. Adenomyosis was diagnosed frequently in the age group of 40-50 years in other studies while in our study women in the age group of 31-40 years and 41-50 years were equally affected. The data which was obtained from international studies were in consistence with those of our study regarding the parity and the symptoms of adenomyosis.

Adenomyosis was also seen in a considerable number of patients with a prolapsed uterus and postmenopausal bleeding. The preoperative diagnosis was possible in only one fifth of the cases. Adenomyosis should be suspected in all the cases of menorrhagia.

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AUTHOR(S):

1. Dr. Bupathy Arunachalam,
2. Dr. Jayasree Manivasakan,

PARTICULARS OF CONTRIBUTORS:

1. Professor, Department of Obstetrics and Gynaecology,
2. Associate Professor, Department of Obstetrics and Gynaecology, Sri Manakula Vinayagar Medical College and Hospital, Puducherry, India

NAME, ADDRESS, TELEPHONE, E-MAIL ID OF THE CORRESPONDING AUTHOR:

Dr. JAYASREE. Manivasakan,
Associate Professor, Department of Obstetrics and Gynaecology, Sri Manakula Vinayagar Medical College and Hospital, Puducherry, India. Pin-605107, India.
Phone no: 9443769196
E-mail: drmjayasree1@yahoo.com

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