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HISTOLOGICAL DIAGNOSED CASES OF ADENOMYOSIS AMONG CLINICAL DIAGNOSED CASES OF ADENOMYOSIS AT A TERTIARY CARE HOSPITAL

[1]Dr. Mehreen Naz, [2]Dr. Eram Najm, [3]Dr. Bushra Ishtiaq
[1]Women Medical Officer in Abbassi Shaheed Hospital, Karachi,
Email: mehrshakil9@gmail.com.
[2]Dental Surgeon in University Medical and Dental College, Faisalabad
Email: eram_najm@hotmail.com.
[3]Allama Iqbal Medical College, Jinnah Hospital Lahore,
Email: bushraishtiaq41@gmail.com

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Abstract:
Introduction*: Adenomyosis is a condition where there is aberrant location of endometrial glandular tissue within the uterine myometrium and is often associated with cyclical uterine pain, dyspareunia, abnormal uterine bleeding such as menorrhagia, spotting or bleeding before and after menses, and infertility. The prevalence of adenomyosis differ from 5 to 70%, with the mean frequency of adenomyosis at hysterectomy given as approximately 20 to 30% (Yu et al., 2020). The frequency of adenomyosis keep on rising as age of the patient increases, peaks between 40-50 years of age and then reaches a plateau after menopause.*
Methodology: *Setting: The study was conducted in the Gyneacology and Obstetrics department of Sir Gangaram Hospital Lahore*
Duration: The duration of the study was nine months.
Study Design: Analytical cross-sectional study.
Sampling Technique: Non-probability consecutive sampling.
Data Collection
The histological specimen of clinically diagnosed adenomyosis was done microscopically by the pathology department of sir gangaram hospital Lahore by examining small tissue samples of the uterus. These tissue samples were collected from a uterine biopsy or directly following a hysterectomy. Uterine biopsies were obtained by either a laparoscopic procedure through the abdomen or hysteroscopy through the vagina and cervix. Histopathological image of uterine adenomyosis was observed in uterus specimen using the hematoxylin & eosin stain.
Results: *A total of 87 hysterectomy specimens studied had adenomyosis as microscopic findings. The patients ranged from 25 to 75 years with average 43 years of age. Majority of the cases were between 40-50 years,52/87(59.8%). Abnormal uterine bleeding was the most common symptom seen in 47 patients (54%) followed by prolapse in 16 cases (18.4%).*

Corresponding author:
Dr. Mehreen Naz,
Women Medical Officer in Abbassi Shaheed Hospital, Karachi,
Email: mehrshakil9@gmail.com.

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INTRODUCTION:

Adenomyosis is a condition where there is aberrant location of endometrial glandular tissue within the uterine myometrium and is often associated with cyclical uterine pain, dyspareunia, abnormal uterine bleeding such as menorrhagia, spotting or bleeding before and after menses, and infertility. The prevalence of adenomyosis differ from 5 to 70%, with the mean frequency of adenomyosis at hysterectomy given as approximately 20 to 30% (Yu et al., 2020). The frequency of adenomyosis keep on rising as age of the patient increases, peaks between 40-50 years of age and then reaches a plateau after menopause. Multiparty, smoking, menstrual irregularities, dilatation and curettage are various other risk factors for adenomyosis (Struble, Reid and Bedaiwy, 2016).

Adenomyosis was thought to be a surgical diagnosis established after hysterectomy since the last decade. Meanwhile, it is difficult to differentiate the symptoms between adenomyosis and leiomyomas and can coexist in the same uterus. With the advent of recent diagnostic tools in radiology, three common methods used for clinical diagnosis of adenomyosis are magnetic resonance imaging (MRI), trans abdominal ultrasonography (TAS), and transvaginal ultrasonography (TVS) (Cunningham, Horrow, Smith and Springer, 2018). The diagnostic capacity with trans abdominal ultrasonography (TAS) is limited, while transvaginal ultrasonography (TVS) is a useful and dependable diagnostic tool for adenomyosis. Moreover, transvaginal ultrasonography (TVS) is cost effective tool than magnetic resonance imaging (MRI) and is more readily accessible in the healthcare facilities of underdeveloped countries. The transvaginal ultrasonography (TVS) is both accurate and sensitive but not specific in the diagnosis of adenomyosis (Van den Bosch and Van Schoubroeck, 2018).

METHODOLOGY:

Setting: The study was conducted in the Gyneacology and Obstetrics department of Sir Gangaram Hospital Lahore

Duration: The duration of the study was nine months.

Study Design: Analytical cross-sectional study.

Sampling Technique: Non-probability consecutive sampling.

SAMPLE SELECTION

Inclusion criteria:

- Female patients
- Aged between 18 to 65 years

Exclusion criteria:

- H/O of urogenital cancer
- Immunocompromised Patients

DATA COLECTION PROCEDURE

Approval was obtained from the hospital research and ethical board before starting the study. All the patients meeting the inclusion criteria was included in the study presenting through outdoor patients of gynecology and obstetrics unit of sir gangaram hospital Lahore.

Diagnostic criteria of uterine adenomyosis include two of the five sonographic features on trans vaginal ultrasound (TVS) by the consultant radiologist of sir gangaram hospital Lahore.

(1) No distinction of the endometrial-myometrial junction;
(2) asymmetry of the anterior and posterior myometrium;
(3) subendometrial myometrial striations;
(4) myometrial cysts and fibrosis; and
(5) heterogeneous myometrial echo texture (Tellum et al., 2018).

The histological specimen of clinically diagnosed adenomyosis was done microscopically by the pathology department of sir gangaram hospital Lahore by examining small tissue samples of the uterus. These tissue samples was collected from a uterine biopsy or directly following a hysterectomy. Uterine biopsies were obtained by either a laparoscopic procedure through the abdomen or hysteroscopy through the vagina and cervix. Histopathological image of uterine adenomyosis was observed in uterus specimen using the hematoxylin & eosin stain. The histopathology specimen was diagnosed as adenomyosis by the pathologists if microscopic findings include the endometrial glands and stroma haphazardly distributed throughout myometrium and concentric myometrial hyperplasia frequent around adenomyotic foci. Diagnostic criteria used require either the endometrial tissue to have invaded greater than 2% of the myometrium, or a minimum invasion depth between 2.5 to 8mm (Struble, Reid and Bedaiwy,

RESULTS:

A total of 87 hysterectomy specimens studied had adenomyosis as microscopic findings. The patients ranged from 25 to 75 years with average 43 years of age. Majority of the cases were between 40-50 years,52/87(59.8%). Abnormal uterine bleeding was the most common symptom seen in 47 patients (54%) followed by prolapse in 16 cases (18.4%). Twenty four patients (27.6%) were asymptomatic.

The most common endometrial pattern was proliferative endometrium seen in 55 cases. Endometrial hyperplasia was present in 11 cases, secretory phase in 15 cases. Atrophic endometrium was seen in 04 cases, basal endometrium in 02 and hormonal changes were present in one case.

Comparison of patients with SVR12 and those who failed to achieve SVR12.

Pattern of endometrium and associated pathologies	Number of cases	Percentage
Proliferative	55	63.2
Secretor	13	16
Atrophic	05	5.8
Basal	02	2.3
Hyperplasia	10	11
Leiomyomata	04	4.6
Serous cystadenoma	36	41.4
Endometrial polyp	05	5.7
Luteal cyst ovary	03	3.4

DISCUSSION:

Various studies conducted in USA, Germany, Italy and Greece have depicted variable prevalence of adenomyosis ranged from 08% to 20% (Yu et al., 2020). Whereas the prevalence of adenomyosis in asian subcontinent is reported as high as 61.5% (Jiang and Cheng, 2016). Clinical diagnosis of adenomyosis is difficult to established as 33% to 50% of the cases are asymptomatic. Various pathological disorders such as leiomyoma, endometriosis, endometrial polyp, endometrial hyperplasia and carcinoma is associated with adenomyosis (Johnatty et al., 2020). The study by struble et. al. (2016) concluded that patients with histologically diagnosed adenomyosis has frequency of chronic pelvic pain (77%), heavy menstrual bleeding (40-60%), painful cramping menstruation (15-30%) and painful vaginal intercourse (7%) respectively. Until recently, it is difficult to establish the diagnosis of adenomyosis before hysterectomy and therefore, it is not surprising that preoperative diagnosis rates of adenomyosis based on clinical findings range from 3 to 26%. The presenting symptoms of adenomyosis are non-specific and is interlinked mainly with disorders such as dysfunctional uterine bleeding, leiomyomas and endometriosis (Johnatty et al., 2020). Thus, certain findings are controversial in the diagnosis between adenomyosis, menorrhagia, dysmenorrhea and pelvic pain (Gordts, Grimbizis and Campo, 2018). In a study conducted by Hanafi M (2013), of the 123 patients (75.46%) who were positively diagnosed with adenomyosis, 93 patients (75.61% PPV) were diagnosed by the histopathological findings. The sensitivity of TVS in the diagnosis of adenomyosis was 84.55% (95% CI 76.4-90.7, P < 0.0001) and the specificity was 43.40% (95% CI 29.8-57.7, P = 0.41).

The studies conducted by Shivananjiah et al (2016) and Anwar ali (2005) et al depicted that abnormal uterine bleeding was the most common clinical symptom with histologically diagnosed adenomyosis with 50% and 73.7% cases respectively in 41-50years age group. Sagar et. al. (2020) showed that the age of the patients who had adenomyosis ranged from 25 to 65 years, majority were in the age group of 40-50 years in 87 patients sample with abnormal uterine bleeding was the most common symptom.

REFERENCES:

1. Shivananjiah C, Nayak A, Swarup A, Honappa S, Swaminathan KR, Pathadan DS. Histopathological pattern of endometrium in Adenomyosis. Indian Journal of Obstetrics and Gynecology Research.2016;3(2):101-311.
2. Ali A. The incidence of adenomyosis in hysterectomies. Pak J Med Res.2005;44: 38-40
3. Sagar, Nishant & Tomar, Reena & Balhara, Kirti & mallya, Varuna & Mandal, Shramana & Khurana, Nita. (2020). Histopathological Association of Adenomyosis with Various Gynaecological Pathologies. Annals of Pathology and Laboratory Medicine. 7. 10.21276/APALM.2825.
4. Struble, Jennifer; Reid, Shannon; Bedaiwy, Mohamed A. (2016). "Adenomyosis: A Clinical Review of a Challenging Gynecologic Condition". Journal of Minimally Invasive Gynecology. 23 (2): 164–185.
5. Hanafi M. Ultrasound diagnosis of adenomyosis, leiomyoma, or combined with histopathological correlation. J Hum Reprod Sci 2013;6:189-93

6. Champaneria R, Abedin P, Daniels J, Balogun M, Khan KS. Ultrasound scan and magnetic resonance imaging for the diagnosis of adenomyosis: Systematic review comparing test accuracy. Acta Obstet Gynecol Scand. 2010;89:1374–84.
7. Bird CC, McElin TW, Manalo Estrella P. The elusive adenomyosis of the uterus-revisited. Am J Obstet Gynecol.1972;112:583-93.
8. Sun YL, Wang CB, Lee CY et al. Transvaginal sonographic criteria for the diagnosis of adenomyosis based on histopathologic correlation. Taiwan J Obstet Gynecol. 2010;49(1):40-4.
9. Taran FA, Stewart EA, Brucker S. Adenomyosis: Epidemiology, Risk Factors, Clinical Phenotype and Surgical and Interventional Alternatives to Hysterectomy. Geburtshilfe Frauenheilkd. 2013;73(9):924-31.
10. Shivananjiah C, Nayak A, Swarup A, Honappa S, Swaminathan KR, Pathadan DS. Histopathological pattern of endometrium in Adenomyosis. Indian Journal of Obstetrics and Gynecology Research.2016;3(2):101-3
11. Ali A. The incidence of adenomyosis in hysterectomies. Pak J Med Res.2005;44: 38-40
12. Graziano A, Lo Monte G, Piva I et al. Diagnostic findings in adenomyosis: a pictorial review on the major concerns. Eur Rev Med Pharmac Sci. 2015;19(7):1146-54
13. Dayal S, Nagrath A. Pattern and frequency of endometrial and ovarian pathologies with adenomyosis uteri in patients who attended the tertiary care hospital among rural population of North India. MAC Journal of Medical Sciences. 2015;1(3):147-50
14. Parazzini F, Mais V, Cipriani S, Busacca M, Venturini P. Determinants of adenomyosis in women who underwent hysterectomy for benign gynecological conditions: Results from a prospective multicentric study in Italy. Eur J Obstet Gynecol Reprod Biol. 2009;143:103- 6.15.