Original Article

OCCURRENCE OF ADENOMYOSIS IN HYSTERECTOMY SPECIMENS AND ITS CLINICAL CORRELATION IN A TERTIARY CARE HOSPITAL

Dr. Shanma[1], Dr. Jayanthi[2], Dr.G ayathiri. C[3]

[1] Assistant Professor, Department of Obstetrics and Gynaecology, Meenakshi Medical College Hospital and Research Institute, Enathur, Kanchipuram.
[2] Professor and Head of the Department, Department of Obstetrics and Gynaecology, Meenakshi Medical College Hospital and Research Institute, Enathur, Kanchipuram.
[3] Assistant Professor, Department of Obstetrics and Gynaecology, Meenakshi Medical College Hospital and Research Institute, Enathur, Kanchipuram.

DOI: 10.47750/pnr.2022.13.S01.283

Abstract

Background: Adenomyosis is a common pathological finding seen in reproductive age group women and also related to the menstrual charecteristics of the women. It is characterized by presence of endometrial tissue with or without hypertrophy of the surrounding myometrium. The preoperative diagnosis is based on clinical finding is very difficult. The aim of this study to determine the prevalence of adenomyosis in hysterectomy specimens done for benign gynecological condition and to find out the clinical profile associated with adenomyosis.

Materials and methods: A prospective study done in women who were admitted for hysterectomy for benign gynecological conditions over a period of one year in the department of obstetrics and gynecology, Meenakshi medical college hospital and research institute. Adenomyosis was diagnosed based on histological report. The overall prevalence of adenomyosis, prevalence in different age group, and associated clinical features was studied.

Results: In this study , 280 patients with benign gynecological condition was taken up for hysterectomy and among them 47 patients was diagnosed to have adenomyosis with a prevalence rate of 16.8%. The most common age group with adenomyosis is 41 to 50 years. It is also very common among multiparous women. The most common presenting symptoms is heavy menstrual bleeding followed by heavy menstrual bleeding with dysmenorrhea. Patients with prior history of dilatation and curettage also have strong association with adenomyosis.

Conclusion: The prevalence of adenomyosis in hysterectomy specimen is 16.8% .The occurrence of adenomyosis is common in the age group of 31 to 40 years ,most common symptom being heavy menstrual bleeding and dysmenorrhea, prevalence increases with increased parity and with history of prior dilatation and curettage.Adenomyosis is a common cause for failed conservative management culminating in hysterectomy, posing risk to health related quality of women's life. Hence the clinical diagnosis of adenomyosis should be considered in women presenting with these symptoms without any definitive evidence of uterine myomas, ovarian mass or uterovaginal prolapse.

Keywords: Adenomyosis, Hysterectomy, Heavy menstrual bleeding, Dysmenorrhea.

Introduction

Aim and objectives

1. To determine the prevalence of adenomyosis in hysterectomy specimens done for benign gynecological condition.

2. To find out the clinical profile associated with adenomyosis**.**

Methodology:

Study Design:

A retrospective study in patients admitted for hysterectomy for benign conditions over a period of one year. Adenomyosis was diagnosed based on histological report. The overall prevalence of adenomyosis, prevalence in different age group, and associated clinical features was studied.

Study Settings:

Department of Obstetrics and Gynecology, Meenakshi medical college and research Institute.

Study period:

- January 2019 to December 2019

Study subjects:

Inclusion criteria:

- Patients admitted for hysterectomy for benign gynecological condition.

Exclusion criteria:

- Women with large sized uterus (more than 16 weeks size of gravid uterus)
- Women who are suspected or diagnosed to have malignant condition.
- Women who were clinically diagnosed to have benign condition but intra operative findings or histopathological findings turned out into malignancy was excluded.

Sample size:

- According to previous study done by Dr. Siddegowda MS,[13] showed a prevalence of 16% to 25%, with a precision of 5.2

Sample size =4pq/d2

P=25 Q=100-25=75 d=5.2

sample size = 280

Data collection tools:

1. Clinical and demographic data from patients admitted in ward for hysterectomy for benign condition as mentioned in inclusion criteria

2. Histopathological examination report of the hysterectomy specimens

In my study women with symptoms like heavy menstrual bleeding, dysmenorrhea, chronic pelvic pain and abdominal distention, who were diagnosed to have benign conditions like fibroid uterus, endometriosis was admitted for hysterectomy procedure. After admission, detailed history taking and clinical examination was noted followed by ultrasound examination. In history taking patients age, chief complaints, parity, mode of delivery

and surgical procedures were noted. In clinical examination, size of the uterus and adxenal lesion was assessed per vaginally. In radiological examination ultrasonogram of the the pelvis was done (both by TAS and TVS) and findings was noted. Following these evaluation and pre operative workup patients underwent hysterectomy procedure.

Hysterectomy was done by any of the following methods

1. Total abdominal hysterectomy.
2. Total laparoscopic hysterectomy.
3. Vaginal hysterectomy.

Intra operative findings were noted , and patients with suspicion of malignancy were excluded from this study.

Gross examination of the hysterectomy specimens was done from the department of pathology , Meenakshi medical college hospital and research institute. Hysterectomy specimens with adenomyosis showed the following gross examination findings[1]

1. Most common finding is the asymmetrical enlargement of the uterus and uterus is found to be globular shape. This is due to the myometrial hypertrophy which is reflected by the thickened myometrium
2. The cut surface is usually trabeculated with ill defined hypertrophic swirls of smooth muscle and petechia.
3. In few specimens blood filled cystic spaces was seen.
4. The lesion cannot be shelled out.
5. In some elderly women the uterus appeared be to atrophic.

Histopathological examination of the hysterectomy specimens were done . Tissue with the lesion was taken, processed and paraffin blocks were prepared. From the block, 5-micron thickness section was cut and stained with eosin and hematoxylin.

The following findings are noted in hysterectomy specimens with adenomyosis[2,3]

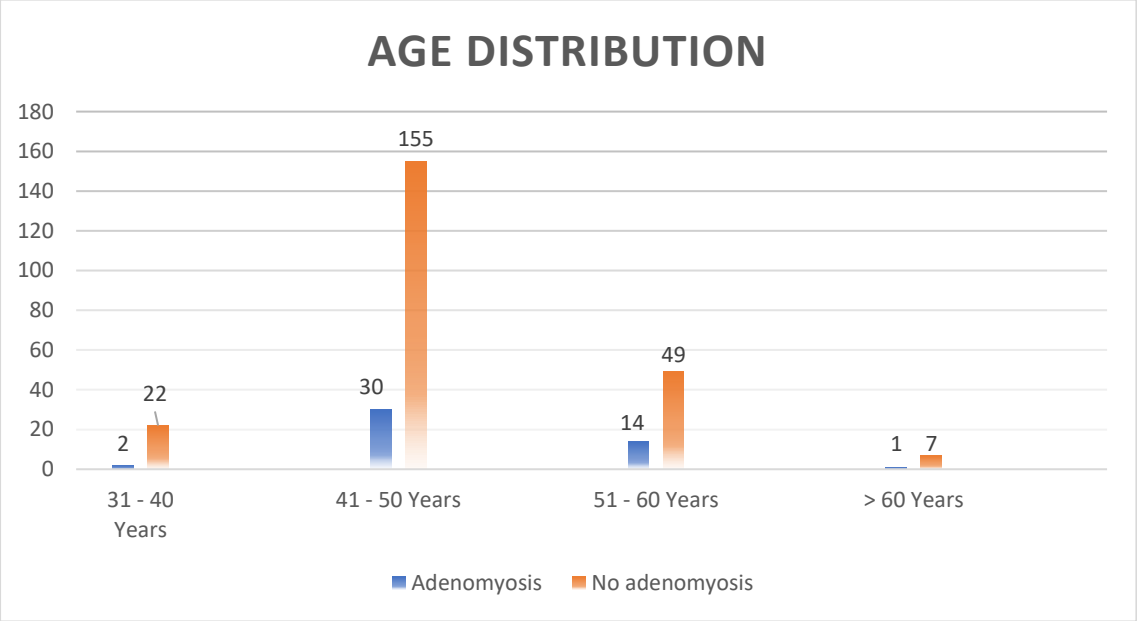
1. Stroma and the endometrial glands lie deep in the myometrium.
2. The depth of penetration of endometrial glands is variable(i.e) 1 to 2.5mm below the basal layer of endometrium or 25% deeper than the over all myometrial thickness.
3. Myometrium smooth muscle often found in round masses, proliferate around endometrial islands.
4. The glandular tissue is usually inactive but one fourth of them is functional.
5. Stromal adenomyosis is characterized by lack of glands.

Analysis:

Two eighty women who underwent hysterectomy at Meenakshi medical college hospital and research institute, during the study period of January 2018 to December 2018, for benign gynecological condition histopathological examination of 47 specimens showedadenomyosis, which is around 16.8% of total cases.

Age wise distribution:

Age	HPR				Total
	Adenomyosis		No adenomyosis		
	NUMBER	PERCENTAGE	NUMBER	PERCENTAGE	
31 - 40 Years	2	4.2%	22	9.44%	24
41 - 50 Years	30	63.8%	155	66.5%	185
51 - 60 Years	14	29.7%	49	21.03%	63
> 60 Years	1	2.1%	7	3%	8
Total	47		233		280

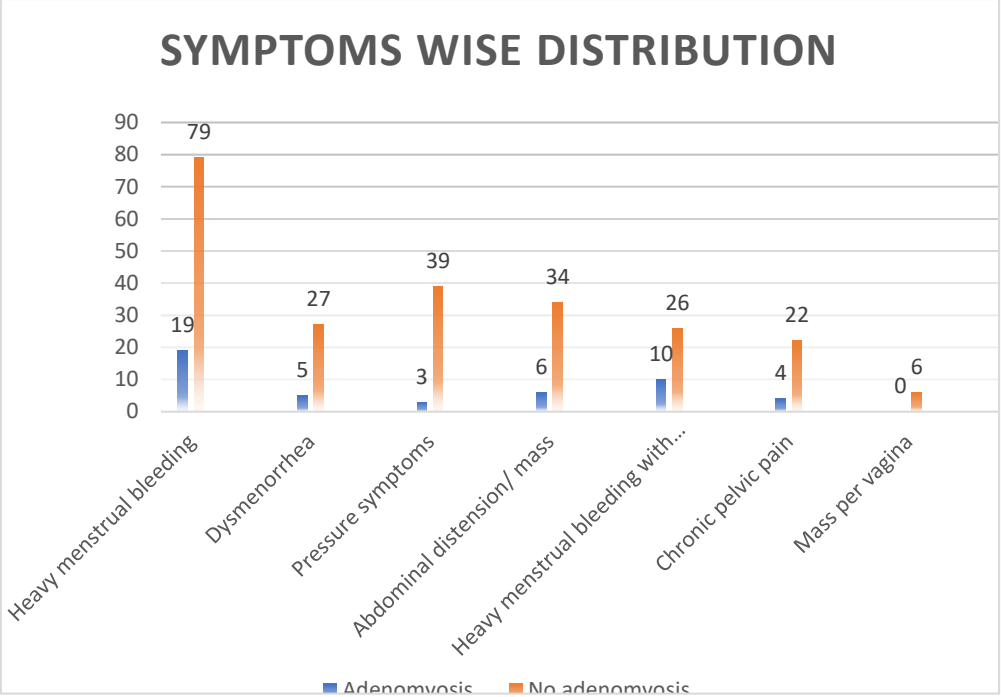


Out of 280 hysterectomy specimens , between the age group of 31 to 40 years there were 24 patients out of which 2 (4.2%) patients were found to have adenomyosis. 185 specimens were there between the age group of 41 to 50 years, out of which 30(63.8%) were found to have adenomyosis.Between the age group of 51 to 60years there were 63 patients , out of which 14(29.7%) were found to have adenomyosis and there was 8 specimen belonging to the age group of more than 60 years of which 1(2.1%) women had adenomyosis.

Majority of patients with adenomyosis were in the age group between 41 to 50 years (63.8)%

Symptoms wise distribution:

Complaints	HPR				Total
	Adenomyosis		No adenomyosis		
	Frequency	Percentage	Frequency	Percentage	
Heavy menstrual bleeding	19	40.4%	79	32.61%	98
Dysmenorrhea	5	10.6%	27	11.5%	32
Pressure symptoms	3	6.3%	39	16.7%	42
Abdominal distension/ mass	6	12.7%	34	14.59%	40
Heavy menstrual bleeding with dysmenorrhea	10	21.2%	26	11.15%	36
Chronic pelvic pain	4	8.5%	22	9.44%	26
Mass per vagina	0	0%	6	2.57%	6
Total	47		233		280



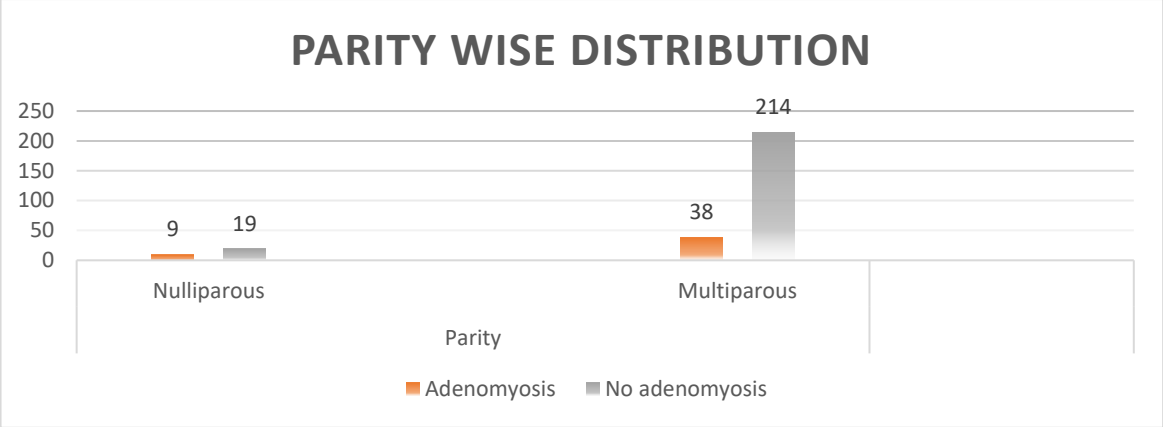
Out of the 47 patients with adenomyosis , there were 19(40.4%) patientswho had symptoms of heavy menstrual bleeding, dysmenorrhea was present in 5 (10.6%)patients, pressure symptoms was present in 3 (6.3%)patients, abdominal distension was present in 6(12.7%), heavy menstrual bleeding with dysmenorrhea was present in 10(21.2%)patients and chronic pelvic pain was present in 4(8.5%) patient.

Out of the 233 patients without adenomyosis, 79 (32.61%) patients had heavy menstrual bleeding, 27(11.5%) had dysmenorrhea, 39(16.7%) patients had pressure symptoms, 34(14.59%) had abdominal distension ,22(9.44%) patients had chronic pelvic pain and 6 (2.5%) patients had mass per vaginum.

Parity wise distribution:

Parity		HPR				Total
		Adenomyosis		No adenomyosis		
		Frequency	Percentage	Frequency	Percentage	28
	Nulliparous	9	19.1%	19	8.15%	
	Multiparous	38	80.8%	214	91.9%	252
Total		47		233		280

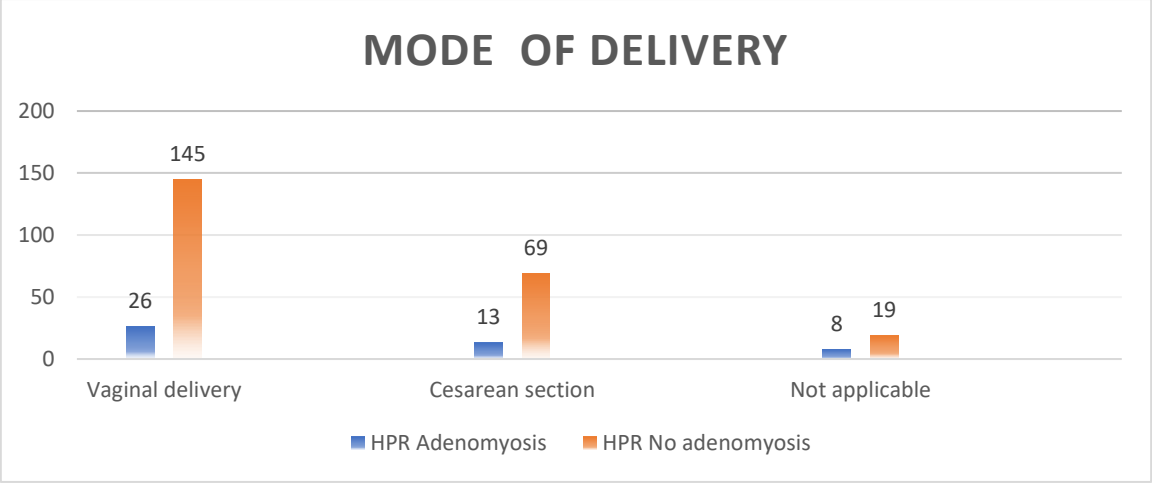
	Mode of delivery	HPR				Total
		Adenomyosis		No adenomyosis		
		Frequency	Percentage	Frequency	Percentage	
	Vaginal delivery	26	55.3%	145	62.23%	171
	Cesarean section	13	27.6%	69	29.61%	82
	Not applicable	8	17.02%	19	8.15%	27
Total		47		233		280



Out of the 47 patients with adenomyosis, 9 (19.1%) patients were nulliparous and 38 (80.8%)patients were multiparous.

Out of the 233 patients without adenomyosis, 19(8.15%) were nulliparous and 214(91.9%) patients were multiparous.

Mode of delivery and occurrence of adenomyosis:

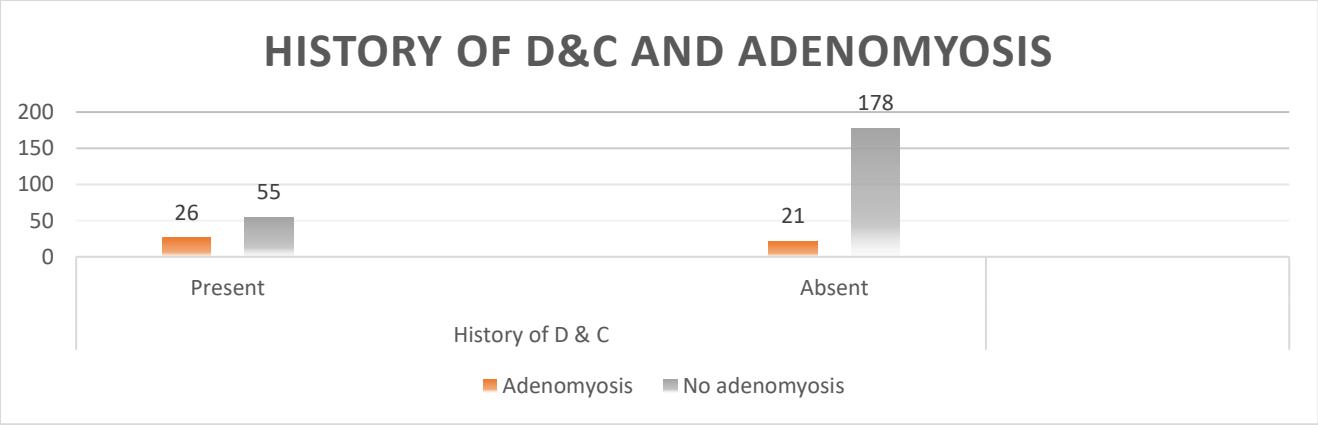


Out of the 47 patients with adenomyosis , vaginal route was the mode of delivery in 26 (55.3%)patients and cesarean section was the mode of delivery in 13(27.6%) patients.

Out of the 233 patients without adenomyosis , 145 (62.23%) patients had a vaginal delivery and 69(29.61%) patients had cesarean section.

History of dilatation and curettage and adenomyosis:

History of dilatation and curettage.		HPR				Total
		Adenomyosis		No adenomyosis		
		Frequency	Percentage	Frequency	Percentage	
	Present	26	55.3%	55	23.6%	81
	Absent	21	44.6%	178	76.39%	199
Total		47		233		280

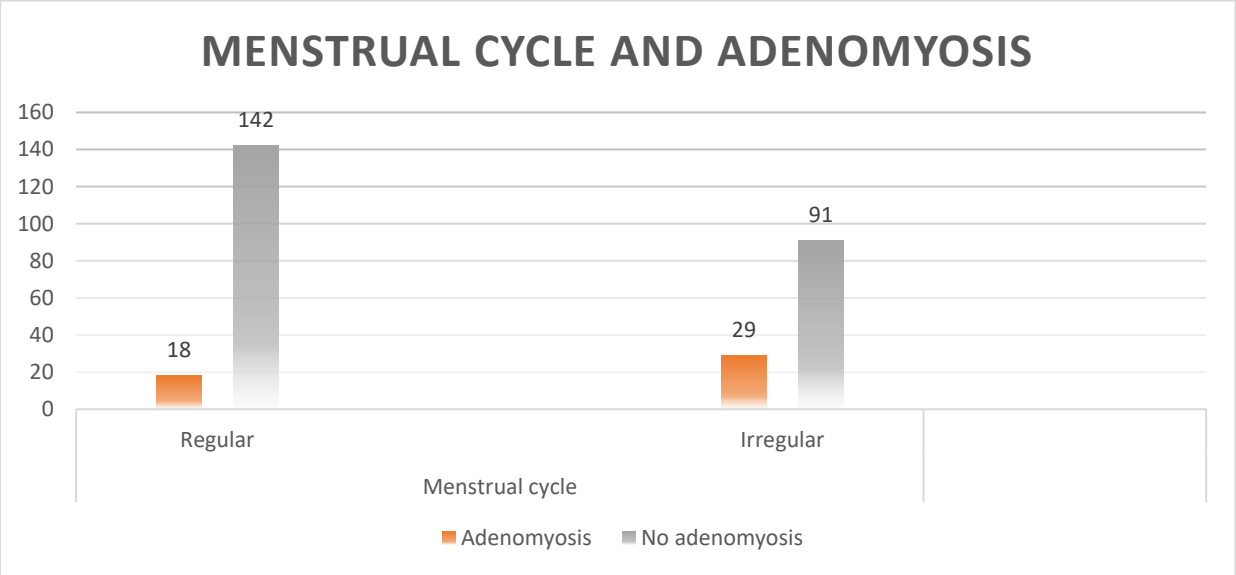


Out of the 47 patients with adenomyosis history of dilatation and curettage was present in 26(55.3%) patients and there was no history of dilatation and curettage in21(44.6%).

Out of the 233 patient without adenomyosis, history of dilatation and curettage was present in 55(23.6%) patients and there was no history of dilatation and curettage in 178 (76.39%) of patients.

Menstrual cycle and adenomyosis:

Menstrual cycle		HPR				Total
		Adenomyosis		No adenomyosis		
		Frequency	Percentage	Frequency	Percentage	
	Regular	18	38.29%	142	60.9%	160
	Irregular	29	61.7%	91	39.05%	120
Total		47		233		280

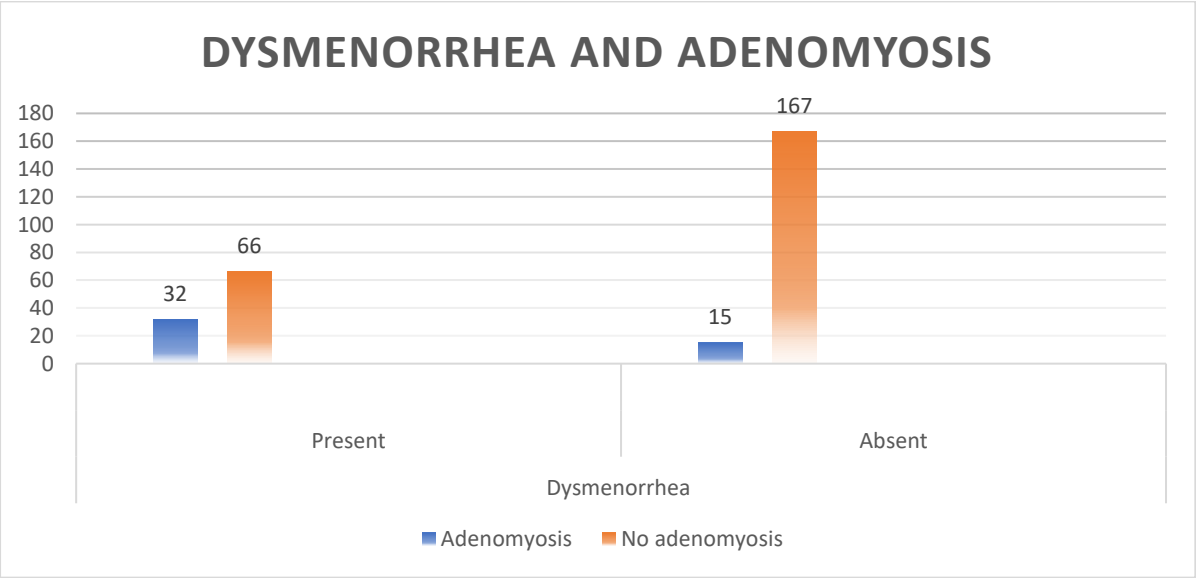


Out of the 47 patients with adenomyosis ,menstrual cycle was regular in18(38.29%)patients w and menstrual cycle was irregular in 29(61.70%)patients with adenomyosis.

Out of the 233 patients without adenomyosis only 91(39.05%) had irregular menstrual cycles.

Dysmenorrhea and occurrence of adenomyosis:

Dysmenorrhea		HPR				Total
		Adenomyosis		No adenomyosis		
		Frequency	Percentage	Frequency	Percentage	
	Present	32	68.08%	66	28.32%	98
	Absent	15	31.91%	167	71.67%	182
Total		47		233		280

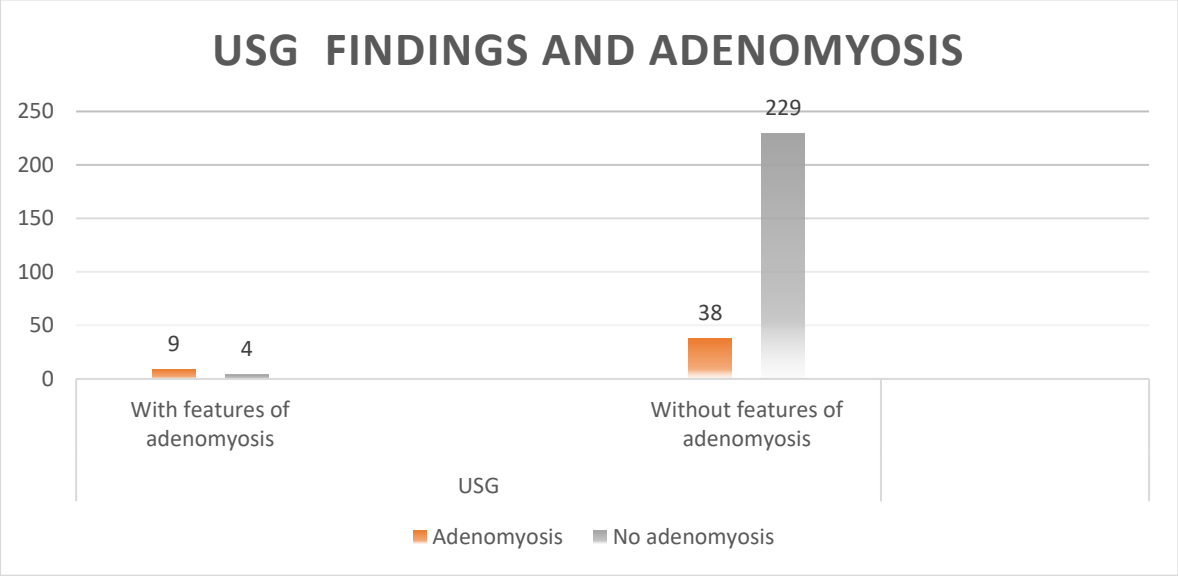


Out of the 47 patients with adenomyosis, there were 32(68.08%) patients with history of dysmenorrhea and there was 15 (31.91%) patients with no history of dysmenorrhea.

Out of the 233 patients without adenomyosis, there were 66(28.32%) with history of dysmenorrhea and 167 (71.67%) without history of dysmenorrhea.

USG findings and adenomyosis:

Ultrasonogram		HPR				Total
		Adenomyosis		No adenomyosis		
	With features of adenomyosis	Frequency	Percentage	Frequency	Percentage	13
		9	19.14%	4	1.71%	
	Without features of adenomyosis	38	80.85%	229	98.28%	267
Total		47		233		280



Out of the 47 patients with adenomyosis , there were only 9 (19.14%) patients with USG showing features of adenomyosis and 38(80.85%) patientshad USG showing no features of adenomyosis. .

Conclusion:

1. The prevalence of adenomyosis in hysterectomy specimen is 16.8% .

2. The occurrence of adenomyosis is common in the age group of 41 to 50 years ,most common symptom beingheavy menstrual bleeding and dysmenorrhea, prevalence increases with increased parity and with history of prior dilatation and curettage.

3. Hence the clinical diagnosis of adenomyosis should be considered in women presenting with these symptoms without any definitive evidence of uterine fibroid, uterovaginal prolapse or ovarian mass.

References

1. Mutter: pathology of the female reproductive tract, 3rd edition, 2014
2. Reichert:Diagnostic gynaecologic and obstetric pathology, 2011

3. Soslow:uterine pathology.(Cambridge illustrated surgical pathology),1st edition , 2012
4. Gordts S, Brosen J, Fusi L, et al. Uterine adenomyosis: a need for uniform terminology and consensus classification. Reprod Biomed Online. 2008;17:244–248.
5. Dueholm M, Lundorf E. Transvaginal ultrasound or MRI for diagnosis of adenomyosis. Curr Opin Obstet Gynecol. 2007;19: 505–512.
6. Harris W, Daniel J. Prior cesarean section: a risk factor for adenomyosis? J Reprod Med. 1985;30:173–175.
7. Cohen I, Beyth Y, Repper R. Adenomyosis in postmenopausal breast cancer patients treated with tamoxifen: a new entity? Gynecol Oncol. 1995;58:86–91.
8. Farquhar C. Medical and surgical management of adenomyosis. Best Pract Res Clin Obstet Gynecol. 2006;20:603–626.
9. Wood C, Maher P, Hill D. Biopsy and conservative surgical treatment of adenomyosis. J Am Assoc Gynecol Laparosc. 1994;1:313–316.
10. Nishida M, Takano K, Arai Y. Conservative surgical management for diffuse uterine adenomyosis. Fertil Steril. 2010;94:715–719.
11. Yang Z, Cao Y, Hu L, et al. Feasibility of laparoscopic high intensity focused ultrasound treatment for patients with uterine localized adenomyosis. Fertil Steril. 2009;91:2338–2343
12. Stewart E, Rabinovici J, Tempany C, et al. Clinical outcomes of focused ultrasound surgery for the treatment of uterine fibroids. Fertil Steril. 2006;85:22–29.
13. Occurrence of adenomyosis in hysterectomy specimen and its clinical correlation in a tertiary care hospital in Mandya, karnataka, India, M S Siddegowda.