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STUDY OF HISTOPATHOLOGICAL SPECTRUM OF ENDOMYOMETRIUM IN HYSTERECTOMY SPECIMENS OF PATIENTS PRESENTINGWITH MENORRHAGIA IN THE AGE GROUP 31-60 YEARS EXCLUDING ABNORMAL UTERINE BLEEDING

KEYWORDS: Menorrhagia,hysterectomy,leiomyoma

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ABSTRACT :-Menorrhagia refers to excessive or prolonged menstrual bleeding occurring at regular intervals. There are many possible causes of heavy menstrual bleeding which include hormonal imbalance,fibroids, miscarriage or ectopic pregnancy, nonhormonal intrauterine device, adenomyosis,pelvic inflammatory disease, and rarely uterine, ovarian, or cervical cancer. hystercetomy is one of the most common surgical treatment for menorrhagia. **AIM:-** The aim of our study was to find out the causes of menorrhagia by histopathological examination of hysterectomy specimens excluding the cases of abnormal utereine bleeding **STUDY DESIGN:-** The present study was conducted in the Department of Pathology of GAUHATI MEDICAL COLLEGE AND HOSPITAL,GUWAHATI,ASSAM over a period of $1^{1}/_{2}$ years. A total of 425 hysterectomy specimens with or without salpingo-oophorectomy were subjected to examination **RESULT:-** leiomyoma being the commonest cause 42%(n=178)followed by adenomyosis 22%(n=93) ,16%(n=68)showed endometrial polyp,12%(n=51)showed dual pathology of leiomymoma and adenomyosis, 6%(n=26)showed chronic endometritis and 2%(n=9) showed malignant entity. **CONCLUSION:-**Leiomyoma and adenomysosis are the most common lesion in patients presenting with menorrhagia

INTRODUCTION:-

Menorrhagia is a very distressing health problem in women and it proves to be the major drain of gynecological resources. Menorrhagia refers to excessive or prolonged menstrual bleeding occurring at regular intervals1. It may be of two types 1.primary which is due to AUB and 2.secondary which is due to uterine and ovarian pathology, systemic diseases and iatrogenic causes2 .Usually the secondary causes of menorrhagia are benign lesions such as leiomyoma, adenomyosis, etc. Rarely malignant entities like endometrial carcinoma,endometrial stromal tumour,secondaries in endometrium may present with menorrhagia .Systemic disorders such as hypothyroidism, liver disease, cirrhosis, chronic renal disease, and usage of intrauterine devices
are also associated with menorrhagia.

Many treatment options are available nowadays including medical and conservative surgical procedures but hysterectomy remains the most preferred method to manage gynecological disorders. Hysterectomy can be done by the vaginal or the abdominal route, or with laparoscopic assistance. This helps in adequate sampling of the required and suspected areas and thus helps in
diagnosis of various lesions without any error of sampling.

The purpose of our study was to find out the causes of menorrhagia by histopathological examination of hysterectomy specimens.

MATERIALS AND METHOD :-

The present study was conducted in the Department of Pathology of GAUHATI MEDICAL

COLLEGE AND HOSPITAL,GUWAHATI,ASSAM over a period of 11/2years.

A total of 425 hysterectomy specimens with or without salpingo-oophorectomy were subjected to examination. Patients' brief clinical data were retrieved with respect to age, parity, clinical manifestation, sonographic findings, and basis of diagnosis.

On receipt of surgical specimen, they were fixed in 10% neutral buffered formalin for 24-48 h. A detailed gross examination of uterus, cervix with or without bilateral adnexa was carried out. A minimum of two sections were taken from the cervix (anterior and posterior half), two from uterine corpus near the fundus and an additional section if any gross pathology was identified.

One section was taken each from leiomyomas. Polyps were entirely submitted or sectioned and half submitted if large. Representative sections (3-5 **µ**), stained with hematoxylin and eosin . A detailed microscopic examination of the stained slides was carried out. All findings were cumulatively considered and included for appropriate diagnosis

INCLUSION CRITERIA- patients coming to the outpatient department with complaint of menorrhagia for which hysterectomy procedure was performed.

EXCLUSION CRITERIA- hysrerectomies performed for management of abnormal uterine bleeding, cases of menorrhagia due to systemic and iatrogenic causes.

RESULTS:-

A total of 425 hysterectomy specimens were studied. The age group of the patients were 31-60 Years.

56%(n=236)of the patients belonged to the age group 41-50 years,42%(n=180) were from 31- 40 years ,2%(n=9)were from 51-60 years. 44%(n=185) showed leiomyoma,23%(n=98) showed adenomyosis,16%(n=69)showed endometrial polyp,13% (n=55) showed dual pathology of leiomymoma and adenomyosis, 2%(n=9) showed chronic endometritis and 2%(n=9) showed malignant entity out of which 6 were endometrial ca and one each case of leiomyosarcoma,endometrial stromal tumour and endometrial ca in situ.

AGE GROUP	NO. OF CASES(n)	PERCENTAGE
31-40	180	42
41-50	236	56
51-60	9	2
TOTAL	425	100

TABLE 1-AGE WISE DISTRIBUTION OF PATIENTS WITH MENORRHAGIA

HISTOPATHOLOGICAL DIAGNOSIS	NO. OF CASES(n)	PERCENTAGE
LEIOMYOMA	**185**	**44**
ADENOMYOSIS	**98**	**23**
ENDOMETRIAL POLYP	**69**	**16**
ADENOMYOSIS+LEIOMYOMA	**55**	**13**
CHRONIC ENDOMETRITIS	**9**	**2**
ENDOMETRIAL CARCINOMA	**6**	**1.3**
ENDOMETRIAL STROMAL TUMOUR	**1**	**0.7**
LEIOMYOSARCOMA	**1**	

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ENDOMETRIAL CA IN SITU	1	
TOTAL	425	100

TABLE 2 :HISTOPATHOLOGICAL PATTERN IN MENORRHAGIA

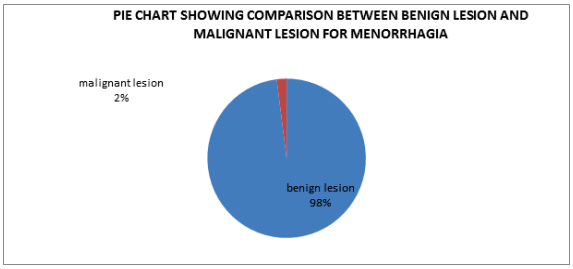


FIGURE2:COMPARISON BETWEEN BENIGN AND MALIGNANT LESION

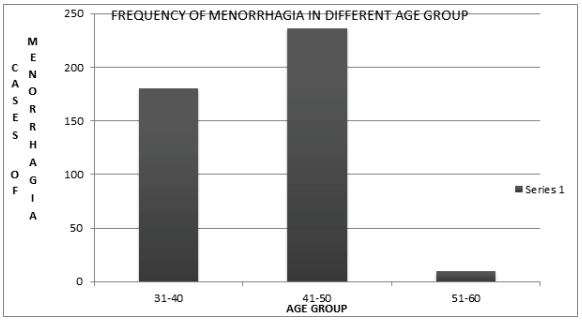


FIGURE 2:FREQUENCY OF MENORRHAGIA ACCORDING TO AGE

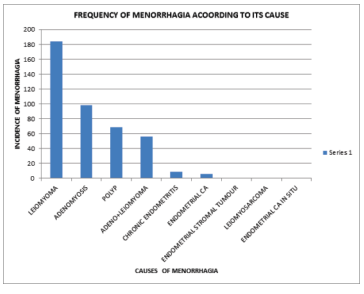


FIGURE 3:FREQUENCY OF MENORRHAGIA ACCORDING TO ITS CAUSE

DISCUSSION:-

We studied 425 cases of hysterectomy specimens of patients presenting with menorrhagia in the age group 31-60 years .In our study ,we found that most of the patients with menorrhagia were in the age group 41-50 years(56%),which is similar to study done by Mackenzie , Shaheen et al, sawke et al and sajjad et al\3,4,5,6 In the present study most common histopathological pattern in menorrhagia is leiomyoma.Most of the studies done on the histopathological study of hystrecomy specimen till date reveals uterine leiomyomas are the most common pathology noted in the uterus. Studies done by Watts WF et al[7] , Abdullah LS[8], Ranabhat SK et al[9] and sajjad et al had distribution of leiomyoma being 41.5%, 34.6%, 30.3% and 39% respectively.The present study noted leiomyoma in 185 cases(44%)..

However ,sawke et al,khreisat[10] et al reported that adenomyosis is the most common histopathological paterrn in hysterectomy specimen whereas leiomyoma is the second most common finding.In the present study, adenomyosis is the second most common pattern(23%) seen in hysterectomy specimens which is similar to study by sajjad et al(19%), domblae et al[11](12.8%) and shaheen et al(35.05%).13% cases showed dual pathology of adenomyosis and eiomyoma which is higher than the study by sawke et al(6%) and dumblae et al(8.02%).

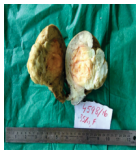
We got 16% cases of endometrial polyp and it is the third most common histopathological pattern in hysterectomy specimen in case of menorrhagia,which is higher than the studies done by sajjad et al(9%) and sawke et al(4%).

Regarding malignant tumours of endomyometrium, they very rare as compared to benign tumours.in our case, we encountered 9 cases (2%) of malignant tumours out of 425 cases in the age group 51-60 years.we found 6 cases of endometrial carcinoma(1.7%),one each of leiomyosarcoma,endometrial stromal tumour ,and squamous cell carcinoma in situ of the endometrium.

Endometrial carcinoma usually presents as postmenopausal bleeding but in premenopausal women it may present as menorrhagia as in our case. our study result is almost similar to the study done by sajjad et al in which they found 2% cases showing endometrial carcinoma.

We have reported one case of endometrial stromal tumour(0.3%). Endometrial stromal tumours are very rare malignant tumors that make around 0.2% of all uterine malignancies. They resemble endometrial stromal cells in the proliferative stage. The annual incidence is 1–2 per million women. Mean age group is 48-52 years. The usual clinical presentation is menorrhagia that occurs in about 90% of women and 70% cases show uterine enlargement. They can present with pelvic pain and dysmenorrhoea.

We also reported a rare case of squamous cell carcinoma in situ of the endometrium.usually these lesions are associated with invasive squamous cell carcinoma of the cervix[12,13,14,15,16,17], as in our case.Although primary squamous cell carcinoma of endometrium[12,18,19] can also occur.In the presence of cervical cancer ,the endometrial lesion results from horizontal spread where cervical neoplastic cells mechanically displace and eventually replace the benign glandular epithelium of the endometrium[20,21].



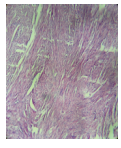


FIGURE 4:GROSS AND MICROSPCOPIC PICTURE OF A LEIOMYOMA CASE

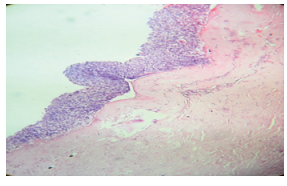


FIGURE5:- GROSS AND MICROSCOPIC PICTURE OF A SQUAMOUS CELL CA IN SITU OF ENDOMETRIUM

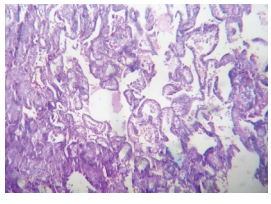


FIGURE 6:- PHOTOMICROGRAPH A CASE OF ENDOMETRIAL CARCINOMA

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CONCLUSION:-

Leiomyoma and adenomyosis are the commonest benign lesion in hysterectomy specimen in patients presenting with menorrhagia with peak incidence in the age group 41-50 years. malignant lesions are very rare comprising only 2% of total cases. Histopathological examination is a must for confirmation of diagnosis.

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