DIAGNOSIS OF ADENOMYOSIS - STILL A CLINICAL DILEMMA (EVALUATION OF A SCORING SYSTEM)

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SUMMARY

Clinical diagnosis of adenomyosis uteri is often a problem. It is commonly confused with D.U.B. and co-existing pelvic pathology. A critical analysis of 526 consecutive hysterectomies performed for various reasons are presented for evaluation. The study was carried out at C.S.S. and Hosp. Calcutta from January 1991 to June 1994. Histopathological evidences of adenomyosis was found in 113 (21%) cases.

Commonest presenting symptoms were polymenorrhoea (30%) dysmenorrhoea (27%) and menorrhagia (22%). Associated gynaecological conditions like leiomyoma, chronic cervicitis, ovarian cyst, endometriosis, endometrial polyp were noted in 35 (31%) cases.

Pre-operative clinical diagnosis was possible only in (18%) cases. Diagnostic aids like U.S.G., laparoscopy and H.S.C. failed to reveal the pathology. Diagnosis was suspected USG in 7.6% by laparoscopy in 9% and by H.S.G.

INTRODUCTION

Adenomyosis is caused by the benign invasion of myometrium by endometrial glands. To start with it may be asymptomatic, but dysmenorrhoea associated with polymenorrhoea and menorrhagia is the common presenting symptom. Pre-opera-

tive diagnosis is difficult ultra sonography, hystero-salpingo-graphy and laparoscopy are inconclusive. It is frequently misdiagnosed as leiomyoma of the uterus.

The purpose of this study is to establish pre-operative clinical diagnosis by clinical scoring system, the causes of diagnostic error, its prevalance in our patients, the limitations of invasive and non-invasive diagnostic aids and finally to co-relate the histopathological results with the pre-operative findings. That adenomyosis is not uncommon in our country as reported by Bhatt, 1960, Mathur et al 1962, Pendse 1981.

MATERIALS & METHODS

The present study consists of evaluation of consecutive 526 cases of abdominal & vaginal hysterectomies performed in Chittaranjan Seva Sadan College & Hospital, Calcutta from January 1990 to June, 1994.

RESULTS & ANALYSIS

Out of 526 hysterectomies performed

for gynaecological disorders adenomyosis was found histopathologically in (21%) cases and the over all incidence varies from 8 to 40% of all hysterectomies though factors influencing the incidence of adenomyosis are still obscure (Kasturilal and Gupta 1981).

AGE :- Age of the patients ranged from 23 to 59 years with a mean of 41 years, higher incidence (53%) was observed in 4th to 5th decade in late reproductive and early menopausal age group.

PARITY :- Parity varied from P3 to P5 but the nulliparous were not immune to this condition. In our studies 87 cases (77%) had more than one child corroborating the relation of child bearing with adenomyosis.

HYSTERECTOMY :- Out of 113 cases in 47 (41.5%) the uterus was removed by vaginal route and in 66 (58-5%) by abdominal route.

SYMPTOMS :- Common presenting features were menorrhagia (22%) and polymenorrhoea (30%). Progressive dysmenorrhoea was the next common

Table I
COMMON PRESENTING FEATURES

Symptoms	No. of cases	Percentage
Menorrhagia	25	22%
Dysmenorrhea	30	27%
Polymenorrhoea	34	30%
Metrorrhagia	11	9%
Mass in lower abdomen	4	4%
Infertility	6	5%
Post menopausal bleeding	3	3%

symptom. Other symptoms like metrorrhagia, mass in lower abdomen and postmeno-pausal bleeding were found in (16%) (Table I).

In 6 cases presenting with endometriosis and infertility leiomyoma was suspected. But in 3 cases adenomyomectomy was done. Hystereosalpingography revealed endometriosis with scattered dye in the pelvic cavity with an incidence of 1.1% revealing co-existance of infertility with adenomyosis.

COEXISTED PATHOLOGY :- Co-existed abnormalities were noted while operating and in post-operative histopathological examinations. Leiomyoma was most common (26%) while chronic cervicitis, endometrial polyp, endometriosis, endometrial hyperplasias and ovarian cyst were also found (Table II).

PREOPERATIVE DIAGNOSIS BY SCORING :- Apart from analysing in-dividual factors and symptomatology, we developed a self clinical scoring system to diagnose the cases preoperatively with more accuracy.

Score values 0,1,2, and 3 were attributed to different parameters depending on the degree, severity and manifestations of signs and symptoms (Table IV).

Score value was analysed as 0-5, 5 to 10, and 10 to 15 respectively in 2%, 7% and 9% cases. Majority of the cases scored high value from 10 to 15. In the remaining 82% cases, clinical criteria occasionally and partly corresponds with the score criteria having score value <0.1 and di-agnosis of adenomyosis was clinically dif-ficult.

Score value was further analysed on the basis of investigations in corroboration with clinical findings (Table V). Correct pre-operative diagnosis by U.S.G. was possible in 7.6% by laparoscopy in 9% and by H.S.G. in 1.1%.

In U.S.G. by using Walsh's criteria Amin et al (1995) diagnosed 48.3% cases. Walsh et al (1979) noticed 5-7 mm irregular cystic spaces disrupting the normal fine specked echopattern of the uterus. While Bohlman & Enorr (1987) were of the opinion that adenomyosis cannot be diagnosed conclu-sively on sonography.

Table II
CO-EXISTING PATHOLOGY

Signs	No. of cases	Percentage
Leiomyoma	9	26%
Chronic Cervicitis	11	31%
Endometrial polyp.	5	14%
Ovarian cyst	3	9%
Endometriosis	4	11%
Endometrial Hyperplasia	3	9%

Table III
SCORING FOR PRE-OPERATIVE DIAGNOSIS

Clinical	Score value			
Features	0	1	2	3
Age	Less than 20 yr.	21-35yr.	36-45 yr.	46-58 yr
Parity (P)	P0 to P1	P2 to P3	P4 to P5	P6 toP8
Polymenor-rhoea	Absent	Mild	Moderate	Severe
Dysmenorrhoea	Absent	Mild Localised	Moderate Radiating	Severe Progressive
Size of the Uterus	Normal	6-8 weeks	8-10 weeks	10-12 weeks

TABLE-IV
PRE-OPERATIVE DIAGNOSIS BASED ON CLINICAL SCORING AND INVESTIGATIONS.

Diagnostic	No.of cases with score value			
Modalities	0 to 5	5 to 10	10 to 15	Total %
Clinical Diag	10 (2%)	37 (7%)	47 (9%)	94 (8%)
U.S.G.	17 (3.3%)	11 (2%)	12 (2.3%)	40 (7.6%)
Laparoscopy	16 (3%)	10(2%)	21(4%)	47(9%)
H.S.G.	4(76%)	1(.19%)	1(.19%)	6(1.1%)

POST OPERATIVE HISTOPATHOLOGICAL DIAGNOSIS:-

Histopathology of hysterectomy specimen revealed how clinical diagnosis differs from pathological diagnosis (Table V).

In the series endometriosis as coexisted pathology was observed in 11% cases. Benson et al (1958) received the same in 13.3% cases & Bird et al (1972) in 6.3% cases.

DISCUSSION

In our study uterine adenomyosis was

Table V
HISTOPATHOLOGICAL DIAGNOSIS

Clinical Diagnosis	Presence of Endometrial Gland in myometrium	
	No. of cases	Percentage
D.U.B.	66	59%
Fibroid	23	20%
P.I.D.	11	10%
Ovarian Cyst	7	6%
Infertility with		
External Endometriosis	6	5%

Table VI
CO-EXTISTED PATHOLOGY AS OBSERVED
BY DIFFERENT AUTHORS

Pathology	Benson 1958	Mathew 1962	Bird 1972	Malik 1992	Present Series
Leiomyoma	56.6%	19%	53.2%	38.5%	26%
Endometriosis	13.3%	-	6.3%	-	11%
Endometrial Polyp.	8%	4.8%	3.2%	14.9%	14%

found in 21% of hysterectomy specimen. Dreyfuss (1940) reported an incidence of 8.1%, Mathur et al (1962) 39.1% and Bird et al (1972) 61.5%.

Polymenorrhoea & menorrhagia both account for 59 cases (52%) and are the most common symptoms. Bird et al (1972) reported their incidence to be 51.2% while Hunter et al (1947) reported 77%.

Our 9% incidence of metrorhagia corresponds with 10.9% of Bird et al (1972).

Leiomyoma was the most common co-existing pathology as reported by different authors (Table VI).

Adenomyosis and Endometriosis were found to co-exist in 11%.

Pre-operative diagnosis based on self clinical scoring system was made in 18 percent cases whereas histological diagnosis was established in 21 percent cases

in the whole series of 526 hysterectomies a diagnostic error of 3 percent.

By invasive and non-invasive diagnostic procedures diagnosis could be made only in 1.1% to 9.1% cases. There are limitations to pre-operative diagnosis, because of atypical signs and symptoms, associated pathology and nature of information gathered by ultrasonography, laparoscopy and H.S.G. Since stromal endometriosis may not produce typical sonogram (Walsh 1979) and leiomyoma masks the picture of adenomyosis (Cullen, 1994) several criteria have to be used to increase the sensitivity of U.S.G. diagnosis of adenomyosis.

CONCLUSION

Adenomyosis should be thought of more commonly in middle aged women presenting with menstrual abnormalities with or without dysmenorrhoea.

Hazards of reproductive life, like pregnancy loss and consecutive deliveries play a definite role in aetiology.

Clinical suspicion occurs if symptoms are resistant to conservative therapy. Emphasis on clinical examination rather than investigations, experience of the clinician, and proper evaluation by clinical scoring will enable to diagnose adenomyosis by the less experienced and post graduate trainee preoperatively with less diagnostic error.

It is astonishing that adenomyosis is the only diagnosis in most cases on histopathological examination where hysterectomy has been performed for abnormal pain and bleeding.

ACKNOWLEDGEMENT

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