ULTRASONOGRAPHY IN MENORRHAGIA

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SUMMARY

A random study of 50 women presenting with menorrhagia was carried out regarding clinico-ultrasonographic-pathological correlation of each of the etiological factors of menorrhagia. A high accuracy was seen in the ultrasound diagnosis of endometiral abnormality, fibroid and adenomyosis. Ultrasound appears to be the investigation of prime choice when a good bimanual examination is not possible or on organic cause of menorrhagia is to be ruled out or an unmarried patient in whom per vaginum examination may not be done.

INTRODUCTION

Menstrual dysfunction is the cause of discomfort, inconvenience and disruption of a healthy lifestyle which affects many millions of women in both the developed and developing world. The extent of the investigations which should be performed to exclude organic disease of the genital tract so that a diagnosis of D.U.B. can be made is a further problem. Ultrasonographic examination of the uterus and Adenxa has not been considered as a routine investigation in management of menstural dysfunction and is often used relatively late when it should have been prime choice especially when a good bimanual pelvic examination was not possible or pelvic pathology is considered.

SUBJECTS, MATERIALS AND METHODS

A random study of 50 women presenting with menorrhagia was carried out. A detailed menstrual history, obstetric history, history of ligation, IUD insertion or use of hormonal pills and h/o. TB elicited and abdominopelvic examination carried out.

Patients were scanned by an experienced sonologist. Correlation was then attempted between ultrasound and histopathology.

menorrhagia in this study of 50 cases is shown in the Table I. DUB was the most common etiological factor followed by fibroid uterus.

OBSERVATIONS AND DISCUSSION

Our clinical diagnosis for the cause of

Table I
DISTRIBUTION OF MENORRHAGIA CASES

Diagnosis	(ABBRV)	No of cases
DUB	A	23
Fibroid	B	14
Adenomyosis	C	5
PID	D	2
IUCD	E	1
Ovarian Tumor	F	2
Ca. Cervix	G	2
Others	H	1

Table II
AGE AND MENORRHAGIA

Age in Years	A	B	C	D	E	F	G	H
12 - 18	4	0	0	0	0	0	0	0
19 - 30	1	3	0	1	0	1	1	0
31 - 40	7	7	3	1	1	1	1	1
40 +	11	4	2	0	0	0	0	0

Majority of the patients with DUB presented in the peri-menopausal age group as observed in Table II. Fibroid and Adenomysis of the Uterus was frequent in the thirties.

Table III
PARITY AND MENORRHAGIA

Parity	A	B	C	D	E	F	G	H	Total
0	4	5	1	2	0	1	1	0	14
1	1	2	1	0	0	0	0	0	4
2	2	0	0	0	1	1	0	0	4
3	16	7	3	0	0	0	1	1	28

Majority of patients with DUB were multiparous as seen in Table III.

Table IV
STERILIZATION AND MENORRHAGIA

Ligation	A	B	C	D	E	F	G	H	Total
Done	12	7	3	0	0	0	1	0	23
Not Done	11	7	2	2	1	2	1	1	27

There is no correlation between any of the etiological factors responsible for menorrhagia and h/o sterilization observed in Table IV and also reported by De Stefano (1985).

CLINICO-ULTRASONOGRAPHIC PATHOLOGICAL CORRELATION OF EACH OF THE ETIOLOGICAL FACTORS:

A. CL-US-HP CORPRELATION FOR D.U.B.

Bar Diagram : 1
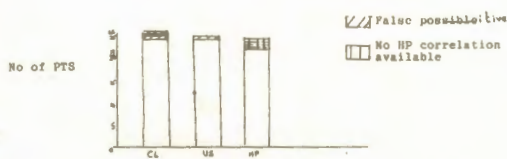
Our clinical diagnosis correlated well with ultrasound diagnosis in 24 out of 26 patients while histopathology confirmed the diagnosis in 19 cases. Our clinical diagnosis proved to be wrong in 2 cases as sonography detected fibroid uterus in 1 case and lost IUCD in another. One case turned out to be Ca cervix stage Ia on histopathology. Four cases in which there was no histopathology correlation were of puberty menorrhagia.

In a study Smith and Bakos (1991) where transavaginal ultrasound was used for identifying endometrial abnormality pre-operatively in 49 premenopausal women,

the sensitivity in diagnosing endometrial pathology was 67%, specificity 75% and positive and negative predictive values 14% and 97% respectively.

Malpani and Single (1990) observed a specificity and sensitivity of endometrial thickness in the diagnosis of endometrial hyperplasia as 100% and 81% respectively when 10mm was taken as the upper limit of normal and an associated absence of corpus luteum and a presence of bulky uterus.

B. CL-US-HP CORRELATION FOR FIBROID UTERUS.

Bar Diagram : 2

There were 18 cases of fibroid clinically diagnosed of which 14 were confirmed to be fibroid on ultrasound examination.

Garza et al (1991) evaluated diagnostic value of ultrasound in uterine myomas and found a diagnostic accuracy of 87.5% and 95.8% with transabdominal and transvaginal sonography respectively while hysteroscopy had a diagnostic accuracy of 100%.

C. CL-US-HP CORRELATION FOR ADENOMYOSIS

Clinically only one case was diagnosed as of adenomyosis whereas ultrasound and histopathology examination showed 5 patients with adenomyosis. Four cases were clinically missed as fibroid uterus
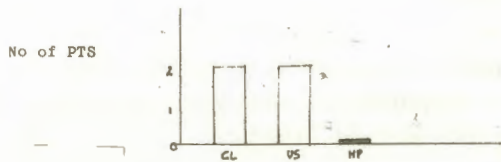
Bar Diagram : 3
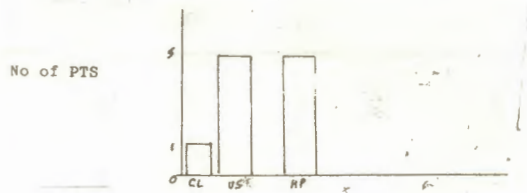
Luigi et al (1992) demonstrated a sensitivity of 81%, specificity of 98%, a positive predicitive value of 74.1% and a negative predictive value of 98.6% with transvaginal sonography.
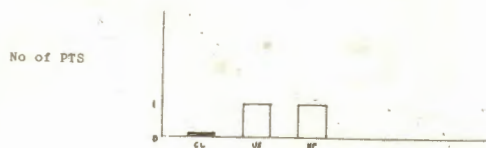
D. CL-US-HP CORRELATION FOR P.I.D.

Bar Diagram : 4

As observed in the above bar diagram, our clinical diagnosis proved to be right on ultrasound examination in both cases of menorrhagia due to P.I.D. Histopathology correlation was not available.

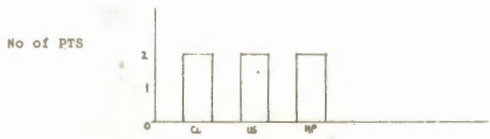## E. CL-US-HP CORRELATION FOR LOST IUCD

Bar Diagram : 5

As observed in the above diagram, there was a case in which provisional diagnosis of DUB was made but ultrasound examination revealed lost IUCD embeded in the myometrium which was responsible for patient's profuse periods.

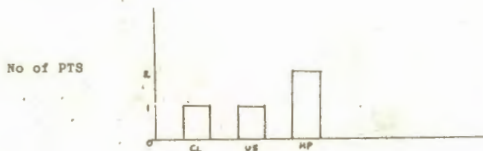**F. CL-US-HP CORRELATION FOR OVARIAN TUMORS :**

Bar Diagram : 6

In this series, we had 2 cases of menorrhagia due to ovarian tumors which were cofirmed on ultrasound examination.
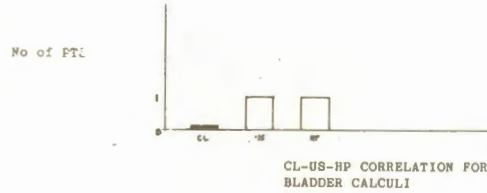
G. CL-US-HP CORRELATION FOR CA CERVIX :

Bar Diagram : 7

It is difficult to delineate cervical carcinoma in its early stages even by transvaginal ultrasound as in one of the cases seen in this study.

H. OTHERS :
CL-US-HP CORRELATION FOR BLADDER CALCULI

Bar Diagram : 8

CL-US-HP CORRELATION FOR BLADDER CALCULI

Our provisional clinical diagnosis of anterior wall subserous pedunculated fibroid proved incorrect, as scan revealed bladder calculus.

CONCLUSION

Ultrasound is non-invasive and presents little discomfort to the patient other than full bladder which is eliminated with the use of transvaginal sonography.

Endoluminal catheter Assisted Transcervical (ELCAT) ultrasound technique that uses as microtransducer at the tip of a catheter inserted into the uterus represents the latest and most innovative technique for evaluation the endometrium and early pregnancy.

Ultrasound examination is rapid and non-invasive out patient procedure, does not require anaesthesia and is less expensive than D & C and hysteroscopy.

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