

ASSESSMENT OF THE SIZE OF THE UTERUS (CLINICAL & METERIC)

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Introduction

Accurate assessment of uterine size in abortion seekers is important for obvious reasons. The complication rate and method of termination varies if the size of the uterus is above 12 weeks, and misjudgement in the size of the uterus can result in perforation of the uterus. A full bladder, retroverted gravid uterus, loaded rectum, presence of an adenaxial mass may make such an assessment difficult. Uterine size as calculated from period of gestation must be correlated with the size assessed clinically and in case of gross discrepancy the cause should be looked for e.g., mistaken dates, wrong history, specially in illegitimate pregnancy, twins, fibromyoma etc. before undertaking pregnancy termination in such cases.

Material and Methods

A study was conducted in patients undergoing first trimester abortions at Nehru Hospital Postgraduate Institute of Medical Education and Research, Chandigarh from August 1976 to October, 1976. Two hundred and fifty consecutive cases were analysed as regards their age, parity, period of gestation, uterine size on

bimanual palpation, and utero-cervical length measured prior to dilatation of cervix. An attempt has been made to correlate the uterine size assessed clinically with period of gestation and the utero-cervical length, so as to know which is the best parameter for assessing the uterine size. The cases were mostly in third decade of life (62.8%) and commonly were para two (63.2%). Among the 250 cases studied, menstrual regulation was done in 30% cases and suction aspiration in the remaining cases. Table 1-IV show the distribution of cases, according to parity and period of gestation, clinical assessment of uterine size and uterocervical length in relation to the length of amenorrhoea (in days) and uterine size (clinical) and utero-cervical length. It was ensured that the menstrual data was accurate. Statistical evaluation revealed uterine size as assessed clinically to be the best index as compared to the utero-cervical length measured by the uterine sound and the period of gestation calculated from L.M.P. as shown in Table V.

Discussion

The uterus hypertrophies during pregnancy and involutes afterwards, but never returns completely to its pre-pregnancy stage. In parous women, the uterus may be left somewhat larger, due to the deposition of elastic tissue in and

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TABLE I
Distribution of Parity and Period of Gestation (in Days)

Parity	Days of Amenorrhea										Total	
	30-37	38-45	46-52	53-59	60-66	67-73	74-80	81-87	88-94	95-101		102-109
P ₄	—	2	3	1	5	—	—	1	—	—	—	12
P ₃	1	5	14	3	8	2	2	—	—	—	—	35
P ₂	4	44	52	30	14	6	4	—	2	1	—	157
P ₁	3	14	7	6	4	1	—	—	2	—	1	38
P ₀	—	1	2	4	—	—	1	—	—	—	—	8
Total	8	66	78	44	31	9	7	1	4	1	1	250

TABLE II
Distribution According to Uterine size (Clinical) and Period of Gestation (Days)

Uterine size (Clinical)	Days of Amenorrhea										Total	
	30-37	38-45	46-52	53-59	60-66	67-73	74-80	81-87	88-94	91-101		102-109
12 wks	—	—	—	—	2	—	2	1	1	—	—	6
10 wks	—	1	—	6	5	4	3	—	—	—	—	19
8 wks	—	9	35	23	17	4	1	—	1	1	1	92
6 wks	2	21	36	13	5	1	—	—	—	—	—	78
Bulky	6	35	7	2	2	—	1	—	2	—	—	55
Total	8	66	78	44	31	9	7	1	4	1	1	250

Total: 250.
r = + .52.

TABLE III
Distribution According to Utero-Cervical Length and Period of Gestation (in Days)

Utero Cervical Length (Cm)	Days of Amenorrhoea											Total
	30-37	38-45	46-52	53-59	60-66	67-73	74-80	81-87	88-94	95-101	102-109	
14 cm.	—	—	—	—	—	—	—	1	—	—	—	1
12 cm.	—	1	—	—	—	—	—	—	—	—	—	—
11 cm.	—	3	5	3	1	2	1	—	1	—	—	2
10 cm.	—	11	24	18	14	4	3	—	1	—	—	16
9 cm.	—	10	6	4	3	—	1	—	—	—	—	76
8.5 cm.	—	—	4	1	—	2	1	—	—	—	—	24
8 cm.	3	24	25	12	9	1	—	—	—	—	—	8
7.5 cm.	3	9	11	3	3	—	1	—	1	—	—	74
7 cm.	2	3	1	2	1	—	—	—	1	—	—	32
6 cm.	—	5	1	1	—	—	—	—	—	—	—	10
Total	8	66	78	44	31	9	7	1	4	1	1	250

Total 250.

$r = + .14.$

TABLE IV
Distribution According to Uterine Size (Clinical) and Utero-cervical length (Cm.)

Uterine size clinical (weeks)	Utero-cervical Length (Cm.)											Total
	6	7	7.5	8	8.5	9	10	11	12	14		
12	—	—	—	—	—	—	2	3	—	—	—	6
10	—	—	1	—	1	1	10	4	2	—	—	19
8	—	—	3	20	5	8	48	8	—	—	—	92
6	2	5	15	32	2	10	11	1	—	—	—	78
Bulky	6	5	12	22	—	5	5	1	—	—	—	55
Total	8	10	31	74	8	24	76	16	2	1	—	250

Total: 250

$r = + .55$

TABLE V
Intercorrelation Amongst the Three Measures of Uterine Size

	Utero Cervical Length (U.C.L.)	Clinical Assessment (C.A.)	Period of Gestation (P.O.G.)
*U.C.L.	—	+ .55	+ .14
**C.A.	+ .55	—	+ .52
***P.O.F.	+ .14	+ .52	—

* U.C.L.: Utero Cervical Length.
 ** Clinical Assessment.
 *** Period of Gestation.

around blood vessels during pregnancy. The dimensions of a parous uteri vary but the nulliparous organ measures approximately 8-9 cm in overall length, Jeffcoate, (1975); Shaw (1971); Mallik (1971); William (1976). In our experience, clinical judgement of uterine size has proved to be a reliable parameter in assessing its size, when compared to the measurement by the uterine sound or duration of amenorrhoea as calculated from L.M.P., shown in Table V. It is important to assess the uterine size accurately before undertaking terminations, in order to avoid injury to the uterus during vaginal evacuations by various instruments. Routine use of uterine sound for measuring the utero-cervical length prior to evacuations is not ad-

vocated, as an analysis of the cases of perforations during the 5 years of M.T.P. service at the centre has revealed that in 20% cases sound was the offending instrument. Moreover, absolute reliance on the history of the period of amenorrhoea may not be justified in cases with discrepancy in the size of uterus as observed clinically and when calculated from L.M.P. as women may give false statements to seek the abortion, specially when involved in an illegitimate pregnancy or cases of lactational amenorrhoea may present such a situation.

With training facilities for medical personnel in medical termination of pregnancy, at our centre, it is important to stress the need for accurate assessment of uterine size before selecting a particular method for a case.

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