

## MENSTRUAL REGULATION

by

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The term "Menstrual Regulation" was coined to describe early abortions performed prior to seventh week of gestation. This mini-abortion is performed without cervical dilatation, and at times even prior to the appearance of a positive pregnancy test.

This paper deals with the first 220 menstrual regulation procedures performed. The study was carried out to determine the efficacy of the procedure, its safety and to note the appearance of any subsequent complications.

### Methodology

A self contrived polyethylene cannula was used, made of the Cu. T insertor. One end was sealed with flame and two holes were made with a sharp knife near the sealed end. This cannula was found to be effective and easy to handle.

Routine pelvic examination and investigations were carried out in each woman. An important prerequisite for this procedure was that uterus should not be more than 6 weeks size of pregnancy. No anaesthesia or premedication

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was used and the procedure was carried out in the minor operation theatre of the out-patient department. The first 30 cases were carried out with the "Rolon Rocket" menstrual extraction kit which contains a 50 ml. syringe and a cannula. The next 190 cases were carried out with the electrically operated suction machine.

This self-contrived polyethylene cannula was introduced into the uterine cavity so that the tip of the cannula just touched the fundus of the uterus. The cannula was connected to the suction machine via a rubber tubing with an intervening glass bulb of 50 ml. capacity, so as to collect the products of conception and the blood lost during the procedure. A negative suction was maintained at 635 mm. of Hg. The cannula was introduced usually once and rotated through 190° in the uterine cavity during the procedure. The tissue and blood collected in the glass bulb were measured and sent for histological examination and the patient was discharged one hour after the procedure. Three follow-ups were planned for each patient, at intervals of one week, three weeks and five weeks after the procedure.

### Results

Among the 220 cases studied the method was successful in 201 cases and in 19 cases dilatation of the internal cervi-

cal os was required before the cannula could be introduced.

In 161 cases (74.5%) the histopathological examination revealed chorionic villi and decidual reaction, whereas in 55 cases (25.5%) secretory or proliferative endometrium was obtained (Table I).

None of the complications mentioned warranted hospitalisation or any other treatment except observation for a short time. Table V shows the remote complications. As regards endometritis; out of 8 cases in 3 the pregnancy was continuing and these 3 cases had high fever which

TABLE I  
Histopathological Examination of the Specimen

Chorionic villi.	134	62%	}	74.5%
Decidua	27	12.5%		
Secretory or proliferative endometrium	51	23.6%		
Others*	4	1.9%		
* No tissue obtained	3			
Only muscle tissue	1			

The duration of amenorrhoea varied from 2-29 days over the missed cycle and the mean duration was 14.2 days. In 35 cases the duration of amenorrhoea was between 15-29 days over the missed cycle. There was no significant correlation between the duration of amenorrhoea and the histopathological examination (Table II).

TABLE II  
Period of Amenorrhoea

		(mean) Days
Chorionic villi.	134	10.42
Decidua	27	9.48
Secretory or proliferative endometrium	51	10.24
Others	4	6.5

The volume of tissue and blood obtained together ranged between 1-50 ml. and the mean volume of tissue was significantly more in cases who were pregnant as demonstrated by histological examination as compared to those who were not pregnant (Table III).

The complications encountered during the procedure are shown in Table IV.

TABLE III  
Volume of Tissue Obtained

Chorionic villi	133	15.05 ml.
Decidua	27	8.9 ml.
Secretory or proliferative endometrium	51	6.35 ml.
Others	4	Volume negligible

TABLE IV  
Immediate Complications

No complications	195 (88.6%)
Excessive bleeding	5
Syncopal attack	6
Nausea and giddiness	5
Bradycardia	2

responded to antibiotics within 48 hours and only these 3 cases needed hospitalisation. Two cases had only foul-smelling vaginal discharge and the rest of the 3 cases had low grade fever.

Continuation of pregnancy was observed in 4 cases, which were terminated later on. Out of these 4 cases, 1 had an ectopic pregnancy which could not be diagnosed at the time of the menstrual regulation procedure and the histopathology report revealed decidual reaction. This patient had normal menstruation 4



weeks after the procedure and exactly 11 days after the periods she reported to the hospital in shock with ruptured tubal gestation.

Out of these 220 cases, 7 cases came with repeat pregnancy within a period of 3 to 6 months.

#### Discussion

Menstrual regulation is a highly successful procedure in terminating early pregnancy. In the series by Landesman *et al* (1974) the incidence of continuing pregnancy was 2% while in the present series 4 cases (1.8%) had continuing pregnancies. In 3 cases suction evacuation had to be done while the fourth case presented with ruptured tubal pregnancy 6 weeks after menstrual regulation. Beric *et al* (1972) had an overall incidence of residual pregnancy as 31.2% which is a very high figure even though they used a 6 mm cannula.

As regards the technical failure there is no failure reported by Landesman *et al* (1974) but in the series by Goldsmith and Margolis (1971) in 5 cases out of 72 cervical dilatation and a larger cannula were required to empty the uterus. They had given paracervical block in all these cases, whereas in our series we gave paracervical block in those cases only where it was difficult to negotiate the internal os (8.6%). In the series by Beric *et al* (1972) cervical dilatation was required in 15 cases out of 322 (4.6%) and 8 of these cases had paracervical block.

The occurrence of endometritis in the present series is quite in contrast to that in the series by Landesman *et al* (1974). They found endometritis in cases with a histology report of proliferative endome-

trium, whereas in our series in all the cases the patients were definitely pregnant. Ectopic pregnancy has been reported in few studies (Lewis *et al*, 1971). The majority showed chorionic tissue. However, 12.5% showed decidual tissue alone. In these early cases decidua alone is considered as evidence of pregnancy even without the presence of chorionic tissue. This is because the pregnancy site is so small that it is likely to be missed during the procedure and even if it is removed and sent for histological examination it may not be identified. The small early pregnancy sac may be indirectly destroyed during the suction without its being extracted.

Menstrual regulation procedure has many advantages over the suction abortion. No cervical dilatation is required. This reduces the danger of tearing and lacerating the endocervix and avoids injury to the internal os. Blood loss is greatly minimised as the products of conception and the uterine vascular changes are minimal. But, in 25.5% cases in the present study the procedure was carried out unnecessarily with the attendant risk of infection being always there.

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