

MENSTRUAL BLOOD LOSS DURING ORAL CONTRACEPTIVE THERAPY AND IN I.U.D. USERS

by

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Blood loss during menstruation is one of the main factors that influences the iron balance in women. Heavy menstrual loss is a clinical problem which often leads to iron deficiency anaemias. Iron deficiency anaemia is very common in women of fertile age, particularly in developing countries due to poor dietetic conditions and parasitic infections. An incidence varying between 20 to 23 percent have been reported in different studies.

Determination of the amount of menstrual loss was always based on the patient statement. This statement was often misleading as it is only based on comparison with her own previous menstruations. A reliable estimation can only be made from actual determinations of menstrual blood loss. In clinical practice, this is usually not done due to the technical difficulties involved in such determinations. This explains why our knowledge in this respect is always based on the patients own impressions.

The introduction of intrauterine contraception to the world of fertility control raised the problem of excessive menstrual loss with its effects on the occurrence of iron deficiency anaemias, particularly when used on a national level.

This work was performed to study the effect of intrauterine devices and oral contraceptives on menstrual blood loss.

MATERIAL AND METHOD

This study was performed at the family planning clinic in Embaba. Sixty cases were chosen randomly from those attending the clinic. Thirty of them were using an oral contraceptive for 3 to 24 months (combined pills of Megestrol acetate 4 mgm. and ethinyl oestradiol 0.05 mg., «Volidan», B. D. H.). The other 30 cases were using an intrauterine device (Lippes loop size 3—30 mm.) for 3 to 24 months.

All cases were multiparae having 2—9 children and their age ranged between 20—42 years. A careful general and pelvic examination was performed and all proved to be clinically free. The subject's own impression concerning the amount of her menstrual blood loss was reported in every case. A control group of 10 cases was included. They were selected from cases with the same parity and age who were attending the clinic for the first time and who were not using any contraceptive before.

The menstrual blood loss was determined according to the method described by Hallberg and Nilsson (1964). The method is based on the use of cotton pads for collection of menstrual blood. Each patient was supplied with a plastic bag for collecting the cotton pads. An extraction of these pads with 5% sodium hydroxide was performed, thus converting the haemoglobin to alkaline haematin. The latter is determined spectrophotometrically. The amount of haemoglobin lost was determined and the blood loss was calculated from the haemoglobin concentration of the patient's venous blood sample.

Detailed instructions were given to each subject before starting the study and an interrogation was made about the completeness of the collection. All subjects were aware of the purpose of the study and of the importance of careful collection.

RESULTS & COMMENT

The average amount of menstrual blood loss in pill and I.U.D. groups compared to the control is shown in Table I. The menstrual blood lost in IUD users was almost two and half times the control, while in pill users it was three fourths the control. I.U.D. users lost 3 times those using the pills.

TABLE I
Average Amount of Blood Lost in Pill & I.U.D. Users
Compared to Controls

Menstrual Blood Loss (ml)	
Control Group	16.3
Pill Group	12.0
I.U.D. Group	38.2

Analysis of the menstrual blood loss according to the duration of use of the method revealed that the continued use of the I.U.D.-was associated with a gradual increase in the amount of menstrual blood lost. In pill users the amount gradually diminished with the continued use (Table II). At all time intervals, the blood lost in pill users was less than the control. On the other hand, I.U.D. users lost two or three times the controls.

TABLE II
Average Amount of Menstrual Blood Loss (ml) Related
To the months of Use of the Contraceptive

	Duration of Contraception		
	3 — 6 m.	12 m	24 m
Pill Group	15.9	10.46	8.85
IUD Group	30.2	33.6	41.52

When the subjective impressions about the menstrual blood loss were compared to the actual amount of blood lost, an interesting finding was obtained (Table III).

TABLE III
Average Amount of Blood Lost (ml) Related to
The Subjective Impressions

	Subjective Impression		
	No Change	Decreased	Increased
Pill Group	14.2 ml	8.8 ml	—
IUD Group	52.7	47.2	28.6

Table III shows the discrepancy between the subjective impression and the accurate determination of the menstrual blood loss. It stresses that one should not rely on the patient statement which is often misleading.

REFERENCES

1. HALLBERG, L. and NILSSON, L., J. cl. & Lab. investigation, 16, 244, 1964.