

CLINICAL EVALUATION OF THE DIFFERENT LINES
USED IN THE TREATMENT OF BLEEDING WITH

IUCDs

A thesis submitted in partial fulfilment of
the degree of :

M.Sc. Obstetrics and Gynecology

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Lecturer of Obs. and Gyn. Ain Shams University

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ACKNOWLEDGEMENT

I wish to express my sincere gratitude and deep appreciation to Professor Dr. Amin Hassan El-Zeneiny, Professor of Gynecology and Obstetrics, for his kind supervision, constant support and encouragement throughout the progress of this work.

I would like to express my deepest gratitude to Dr. Khaled El-Houdeiby, Lecturer of Gynecology and Obstetrics, for his continuous effort fruitful suggestions and meticulous supervision throughout the whole work.

I owe thanks to Assistant Professor Dr. Ahmed Abdel-Hallem El-Tawil, Assistant Professor of Pathology, for his great help in the practical part of this work.

Finally best thanks to the patients for their cooperation .

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Introduction

The problem of unchecked population growth is important as any facing mankind today, it becomes a central task of our time to stabilize this growth, to avoid its smothering consequences.

The intrauterine contraceptive device (IUCD) is especially useful in large-scale family planning programs, as it is highly effective, reversible and essentially safe and if it is widely applied it might produce reduction in the population growth.

Increased menstrual loss and irregular uterine bleeding are major drawbacks to the acceptability of IUCD, and are considered the main reason for interrupting this method of contraception (Debrux et al., 1981).

The causes of increased menstrual bleeding is not precisely established, but it may be due to increased fibrinolytic activity of the endometrium (Casslen and Astedt, 1981) or may be due to increased prostaglandin synthesis in the endometrium (Subir-Roy and Shaw 1981), or due to mechanical trauma to the endometrium.

Clinical management of increased menstrual blood loss and intermenstrual spotting is not entirely satisfactory.

AIM OF THE WORK

It is difficult to treat bleeding with IUCD_s, as the exact etiology is not precisely established. It may be due to multiple factors, as the increased fibrinolytic activity of the endometrium or the increased concentration of prostaglandin in the endometrium or may be due to mechanical trauma to the endometrium.

Many lines of treatment are introduced to manage the bleeding disorder with IUCD and all are now - satisfactory .

That is why these data stimulate us to evaluate different medical and surgical methods to control the symptom of bleeding with IUCD_s.

REVIEW OF LITERATURE

Evolution of Intrauterine contraceptive devices

The use of intrauterine devices to influence fertility is an ancient technique. For centuries ago.

Arabian and Turkish Camel owners have used intrauterine contraception to prevent pregnancy in their saddle animals by inserting small stones into their uteri.

The first mention of intrauterine pessaries in ancient medicine was in the Hippocratic writings on "Diseases of women". A hollow lead sound was passed into the uterus, and used for insertion of the pessary (Mckay, 1901.).

The completely intrauterine ring of Grafenberg finally replaced earlier designs, and their introduction marked the beginning of a new era (Tietze, 1962).

By the mid 1970 s, following a decade of continuing research on IUCD design, the focus of attention on IUCD was shifting to so-called second generation of devices, in which the plastic IUCDs become a carrier for other substances such as metals e.g. (Copper IUCDs) and hormones e.g. progesterone (Scomegna et al., 1970).

Types of IUCDs used in the study

1- Lippes Loop:

Designed by Jack Lippes (1961) USA, formed of barium-impregnated polyethylene with two transcervical threads. It is available in 4 sizes; A,B,C and D varying from 25-30mm., C size is the one used in patients in the study group and it is the most commonly used of all sizes. The inserter type is the push out one. (population reports, 1979).

2- Copper -T200B:

It is composed of polyethylene carrier supporting 120 mg. of 0.25 mm. diameter copper wire, wrapped about the vertical stem, the copper has 200 sq.mm. surface area. The developer of it, Howard Tatum (USA) and Jaime Zipper (Chile). It is introduced in 1972, and has the withdrawal type of inserter (population reports, 1979).

SIDE EFFECTS AND COMPLICATIONS

The use of IUCD may be associated with one or other of different side effects and complications that might affect the acceptability of the method.

1. bleeding:

The IUCD induced bleeding pattern differs with different types of IUCDs.

Various studies measuring the blood loss have found a significantly less post-insertion mean total MBL (Menstrual Blood Loss) in users of copper 7 and copper T IUCDs than of the Lippes Loop or Dalkon shield (Israel et al., 1974).

Most studies of Lippes Loop D indicate an increased volume of MBL by over 100 per cent compared to preinsertion value (Rybo, 1966).

The incidence of inter-menstrual blood loss with Cu7 IUCD is higher than with inert IUCDs, this may explain why, in most large studies, continuation rates for copper devices are not better than the inert one (Guilleband and Bonner, 1978).

Pedron et al., (1982) quantified MBL in 29 women with Cu-7 IUCDs and in 33 women with ML-250. After the insertion of Cu-7 a slight or no increase at all was observed during

12 months of use, while women wearing an ML-250 showed a greater increase of MBL compared to Cu-7 group.

In an Egyptian study 76 women were fitted with IUCDs 39 of them inert devices and 37 progestasert one. Both groups were followed up for 12 post-insertion months.

The incidence of intermenstrual bleeding was higher in the group of progestasert users (16.2%) than with inert devices users (15.4%). Removals for menorrhagia was higher in inert device-users (5.2%). Serour et al. (1981) found that progesterone releasing IUCDs contrary to inert one cause decrease menstrual blood loss after insertion, but they cause intermenstrual bleeding.

Complications of IUCD induced bleeding :

Bleeding with IUCDs is not so much a problem in developed countries as in the developing ones. Women of under-developed nations are more prone to develop iron depletion more rapidly and to a more serious extent than women of advanced nations. Pedron et al., (1982) measured the Hb concentration for 12 months in women with medicated copper IUCDs, no change was found along the whole study. Goh and Coworkers (1982) studied the duration of bleeding and spotting with ML -250 and their results did not support the suggestion that Long-term use of the IUCD increases MBL.

The explanation of the little decrease in Hb level in IUCD users despite increased menstrual blood loss may be the preservation of iron that might be needed if pregnancy was allowed.

2. Pain

Pain is the primary complaint leading to removal in 2-3% of patients (Lippes, 1965). The second international conference, reported the incidence of pelvic pain from an IUCD to be 5-7% (Segal, 1965).

3. Missing Tail

Ansari (1983) suggested that failure to visualize device tail on vaginal inspection may be indicative of:-

- 1- Unnoticed expulsion.
- 2- Intra-abdominal displacement.
- 3- Short tail.
- 4- Tail retention within the uterine cavity.

4. Perforation

The risk of perforation is presumed to be related to the skill of the person inserting the IUCD, the technique of insertion, the status and configuration of the uterus and cervix and the type of the device that is fitted, (Tatum, 1977).

5. Pregnancy

Incidence:

Pregnancy on top of IUCD ranges between 1-4 per 100 women during the first year after insertion (Clarke, 1976).