HORMONAL CONTROL OF FUNCTIONAL UTERINE HAEMORRHAGE

BY

CHANDRI KAR, M.D., F.C.P.S.,

Hon. Obstetrician and Gynaecologist, National Hospital. Cama and Albless Hospitals,

Hon. Asst. Obstetrician and Gynaecologist,

The problem of functional uterine haemorrhage has engaged the attention of gynaecologists for a long time. The varied forms of treatment that have been advocated from time to time point to the fact that medical opinion still remains divided.

The hormonal control of functional uterine haemorrhage has come into prominence in the last few years with the discovery of hormones; the free availability of these expensive drugs has been an important factor contributing to the armamentarium at hand, which can effectively check serious and severe bleeding in metropathia and even restore the regular menstrual cycles in such cases. A better understanding of the physiology of menstruation and its alterations in functional uterine haemorrhage has afforded a rational approach to successful therapy. It was Allen who first stated 25 years ago that menstruation was due to cyclic reduction of the amount of oestrogenic hormone in the body. About 7 years later Smith and Engle observed that oestrogen withdrawal bleeding does not occur if withdrawal of this steroid is followed by administration of progesterone. Since our present knowledge indicates that menstruation is directly under the control of the steroid hormones of the ovary, some gynaecologists thought it logical to use these same steroids to correct excessive uterine haemorrhage. They reported good results in a number of cases. However as there was a tendency to relapse in a few cases and failure to response in others, Greenblatt suggested the use of a combination of all gonadotrophic steroids (testosterone, progesterone and oestradiol) to effectively control functional haemorrhage.

The present paper is based on 40 cases of functional uterine haemorrhage from hospital and private practice. They have been treated successfully with a combination of gonadol steroids as suggested by Greenblatt and followed up for a period varying from 8 months to 2 years.

Clinical Information

Age. Of the 40 patients under investigation, 16 were between the ages of 20-30 years, 8 were between the ages of 30-40, 12 of them were less than 20 years of age and only 4 patients were more than 40 years old.

Parity. Out of 40 patients, 31 were married and 9 were unmarried; of the 31 married females 25 had never been pregnant, 5 were parous, the parity ranging from 2-5. The remaining patient had an abortion of 3 months after which her complaints started.

Duration and Amount of Bleeding. In the 9 unmarried patients the complaint started with the onset of menarche. In 4 of these cases the bleeding used to last for 15-20 days with an interval of 10 days between the periods. In the remaining 5 unmarried patients the bleeding episodes lasted for a period of 1-2 months with an interval of no bleeding of 2-4 months.

In the 25 nulliparous women, complaints of profuse uterine bleeding started 6-9 months after marriage, their previous menstrual histories being normal. In 12 of these patients the bleeding episodes lasted for 15-30 days with an interval of 2-3 months, in 3 patients the bleeding continued for 1-2 months with an interval of 10-12 days, in 10 cases the bleeding lasted for 2-3 months with an interval of 2-3 months, and in 3 cases the bleeding continued for 1-2 months with an interval of 4-6 months.

In the 5 parous women, the bleeding episodes lasted for 15-20 days with an interval of 5-15 days; their complaints started 3-6 months after the last delivery. In one patient who had an abortion of 3 months, the bleeding started soon after the abortion and it lasted for 12-15 days with an interval of 15-18 days.

Physical Examination and Investigations.

A detailed physical examination was carried out in each of these patients and a pelvic examination done to find out the condition of the uterus and adnexa. Of the 40 cases, 29 had normal sized uteri; in 20 of them cystic ovaries were present in one or both fornices. An underdeveloped uterus was detected in 4 cases and 7 patients were found to have fixed retroverted uteri with clear fornices.

A routine blood examination was done in each of these patients and they all showed varying degrees of anaemia with an associated lowering in the haemoglobin content of the red cells.

Endometrial biopsy was done in 31 patients and pathological examination revealed the changes of metropathia haemorrhagica in these cases. Endometrial biopsy could not be done in the remaining 9 patients who were unmarried. They were treated as cases of functional uterine haemorrhage on the basis of their history.

Previous Treatment. 28 patients had undergone previous hormonal therapy for metropathic bleeding; they had been given injections of oestrin 5 mgms. daily for 3-5 days to check the uterine bleeding. In 17 of these patients the haemorrhage was controlled but on withholding oestrin, bleeding occurred within 7 days; the bleeding was profuse and lasted for several days. In 6 other patients oestrin failed to check the bleeding and they had been given injections of testoste-

rone propionate 25 mgms. daily for 3 days. Bleeding was controlled but returned on stopping the injections. Progesterone was tried in 5 patients in dosage of 10 mgms. daily for 5 days but this also failed and bleeding occurred in four days.

Twelve patients had not been previously given any hormonal therapy; they had been treated with hematinics, oxytoxic drugs and general tonics. The metropathic haemorrhage could not be controlled by any of these measures.

Present Treatment. All the 40 patients were put on a course of injections of triple hormone consisting of oestradiol benzoate 2.5 mgms., progesterone 25 mgms. and testosterone proprionate 25 mgms.* This injection was given intramuscularly daily for five days and this was followed by oral oestrin 0.1 mgm. twice daily for 20 days.

In 5 of the patients who failed to respond to this therapy, a second course of injections of triple hormones was administered and the dosage gradually reduced after the uterine bleeding had been checked. Four patients responded to this second course but one patient failed to respond.

Oestrin withdrawal bleeding occurred in all patients about 10 days after cessation of oral oestrin therapy. This bleeding lasted for 4-6 days. Oral oestrin therapy was then again started and continued for 20 days. After regulating the oestrin withdrawal bleeding in 2-3 cycles, these patients were given injections of ESTROPROGYN (Unichem) (oestradiol benzoate 2.5 mg. and progesterone 25 mg.) every third day for two weeks before expected menstrual period. The menstrual bleeding lasted for 4-6 days. This course was given for 3 months. In addition the patients were also given oral vitamin B-complex, vitamin C and iron and liver.

Results. Out of the 40 patients, 35 responded to the injection of triple hormone and their bleeding was controlled with the first course of injections. Of the remaining 5, four responded to a second course of injections of triple hormone. One patient failed to respond.

As far as the menstrual cycles are concerned, 26 patients now have a regular cycle of 30 days with menstrual bleeding lasting for 4-6 days; 7 patients now have a menstrual cycle of 40 days with menstruation lasting for 5-6 days. Four patients have a cycle of 60 days with menstruation lasting for 6 days. The remaining one patient is still having profuse irregular menstrual bleeding with interval of 5-10 days.

Repeat pre-menstrual endometrial biopsies have been done in fifteen patients only. It could not be done in nine patients who were unmarried. Of the fifteen biopsies done, seven showed follicular phase and eight showed a luteal phase.

Pregnancy occurred in two of the eight patients in whom endometrial

*The product used was UNITRISTERON consisting of oestradiol benzoate 2.5 mgms. progesterone 25 mgms. and testerone propionate 25 mgms. supplied by Unichem Laboratories, Bombay 26.

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