A case of thrombophlebitis in a woman on oral contraceptive

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THE PATIENT is a 26-year-old Chinese woman with four children, the last delivery being in January 1968. She was married in 1961. There is no history of abortions. She has been on an oral contraceptive since March 1968.

I first saw her for this complaint on 8 Jan. 1970. She had pain and tenderness over the long saphenous vein of the right leg. The onset of pain was in the groin on the morning of 2 Jan. The pain spread downward to reach the region of the knee by 5 Jan. and the ankle by 7 Jan.

On examination, she had a slight swelling of the right thigh, and purplish discolouration over the medial aspect of the thigh. There was oedema over the medial aspect of the right ankle. Tenderness was localised over the course of the long saphenous vein. The vein was palpable as a cord above the ankle. She was afebrile. Apart from a cervical erosion, other systems were normal.

Her last period was from 28 December 1969 to 31 December 1969. She resumed taking the pill on 2 January 1970, the last pill being taken on the night of 7 January 1970.

She was admitted to the University Hospital on 8 Jan. 1970. The results of laboratory tests done at the University Hospital are as follows:

Hb. 13.1 G
Platelet count 162,000/ul
TWC 6,200 N 45% F 12% L 43%
ESR 20
Thrombotest 100%
Urine: SG1025
Protein – negative
Sugar ¼% (checked on ward – 0%)
X-ray chest: normal

She was treated symptomatically and discharged on 11 January 1970 with the diagnosis of "(R) Superficial Saphenous Vein Thrombosis (probably due to oral contraceptives.)"

Contraception with oestrogen-progestrone compounds causes a rise in blood clotting factors. Factor VII and Factor X are significantly increased from the third month onward[2] and platelet aggregation is accelerated.[4] These changes do not exceed the levels found in the third trimester of a normal pregnancy; Factor VII, which is accumulative, reaches that level after two years on oral contraceptives[2,4].

The oral contraceptive used by this woman, "Previson". contains 2.5 mg of the progestogen norethynodrel and 0.1 mg of an oestrogen, mestranol. Norethynodrel belongs to the 19-nortestosterone group and is partly metabolised to oestrogen Mestranol is a synthetic compound which is equivalent by weight to ethinyl-oestrodiol.

As a matter of interest, I have questioned this patient to establish her hormonal profile before starting on the pills. Her periods were regular, scanty, lasting three days or less with premenstrual breast discomfort and cramps. There was no leucorrhoea, nor complaint of premenstrual tension or oedema. This suggests a progestogenic profile. It appears then that she was prescribed the appropriate oral contraceptive – an oestrogenic one.

Thrombophlebitis is rare in Chinese and this is the first case reported in this country in a woman on oral contraception. This patient is a young woman and predisposing factors, such as infection and varicosities, are absent. It seems reasonable to conclude that ingestion of oestrogen in contraceptive pills is a causative factor.

Thromboembolism is virtually unknown in this country and the report of a single case of mild and superficial thrombophlebitis should be no cause for alarm. This woman has been on the pill for a relatively short period of two years, and more cases can be expected to be seen as the use of the pill spreads. In the United Kingdom, where thromboembolism is a major problem, the Dunlop Committee has advised the use of oral contraceptives containing 50 microgrammes of oestrogens. As a result, it is likely, that a series of new formulations with low oestrogen content will replace the present range of pills. It is uncertain, however, how much this will help as Factors VII and X changes of the same order are reported with low-oestrogen formulations[3,4].

A registrar should be appointed in this country to whom reports of adverse reactions to oral contraceptions could be directed by the medical profession, general practitioners and government doctors as well as by the clinics of the Family Planning Board and the Family Planning Associations.

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