

DEEP THROMBOPHLEBITIS OF THE LEG IN A CHINESE WOMAN ON ORAL CONTRACEPTIVE PILL

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SYNOPSIS

It is now generally accepted that oral contraceptive pills cause an increase in thromboembolic disease. A previously-healthy Chinese woman with deep thrombophlebitis of the leg while taking oral contraceptive pills is described. She was treated with anti-coagulant and made an uneventful recovery. The relationship between thromboembolism and oral contraceptive pill is discussed. In Singapore, it is a clinical impression that thromboembolic disease is rare; it is the purpose of this case report to remind those who prescribe the pill to report further cases so that the incidence of thromboembolic disease in those taking the pill can be ascertained.

The oral contraceptive pill is now widely used since "Enovid" was introduced in 1960. It is becoming increasingly clear that the pill has many side effects (De Lange and Doorenbos, 1968; Carey, 1970). Of the many adverse effects of the pill, one of the most important is that affecting blood clotting and the vessel walls causing an increased risk of thromboembolic disease. There is a general but not universal agreement that the pill gives rise to an increase in venous thrombophlebitis, with or without pulmonary embolism (Scowen, 1969; American Medical Association drug evaluation committee, 1971; Australian drug evaluation committee, 1970). It is a general clinical impression that thromboembolic disease is uncommon in Singapore and Malaysia. A case of thrombophlebitis in a Chinese woman on the pill has been reported in Malaysia (Rajakumar, 1970). This paper describes a similar case in Singapore.

CLINICAL RECORD

This patient, a 26-year-old Chinese housewife, stayed in the Cameron Highlands, Malaysia, for 5 days during her vacation. Two days after coming down from the Cameron Highlands, she developed pain over the left groin. The pain spread to the thigh and calf in 12 hours. She was admitted to hospital 48 hours later.

Clinical examination showed that she had deep thrombophlebitis of the left leg. The left femoral vein was cord-like and tender. At the largest diameter the left thigh and calf measured 18 and 12.5

inches (the normal side measured 16 and 11.5 inches). Homan's sign was present. There were no varicose veins in the legs. The other systems were normal. The blood pressure was 110/70 mm. Hg. Her temperature was 99°F.

Investigations showed a haemoglobin level of 11.6 G. %; the leucocyte count was 7,500/cu. mm. and the platelet count was 190,000/cu. mm. The clotting time was 2½ mins. and the thrombotest (Owren) was 86%. The chest X-ray and electrocardiogram were normal.

She was treated with intravenous heparin for 48 hours and phenindione. The swelling of the left leg subsided and cleared up in 2 weeks. Phenindione was discontinued after 6 weeks.

She had no past illnesses of note. She was taking the oral contraceptive pill "Lyndiol" (Organon; contains lynestrenol 2.5 mg. and mestranol 0.075 mg.) from April to August 1969. She delivered a healthy baby in June 1970. She took another oral contraceptive pill, "Incremental N" (Carey, 1970) between October 1970 and June 1971. From July 1971 till her episode of thrombophlebitis (6 months) she was taking a third variety of oral pill, Norinyl-1 (Syntex; contains norethisterone 1 mg. and mestranol 0.05 mg.).

DISCUSSION

Oral contraceptive pills are associated with an increase in clotting factors II, VII, IX, X and XII (Poller and Thomson, 1966; Poller, Tabiowo and Thomson, 1968; Dugdale and Mase, 1969). Platelet aggregation has been found to be significantly accelerated in women on the pill (Poller, Priest and Thomson, 1969). Horne *et al* (1970) have shown that oral contraceptives increase the level of alpha 2-macroglobulin which diminishes fibrinolytic activity of plasmin. Distinctive vascular lesions (intimal

and endothelial hyperplasia) have been described in women taking the pill (Irey, Manion and Taylor, 1970). All the above factors probably contribute to the increase of thromboembolism in women taking oral contraceptive pills.

There is a correlation between the dose of oestrogen in the oral contraceptive and the incidence of thromboembolism (Scowen, 1969). This patient was taking a low oestrogen pill ("Norinyl-1; containing 0.05 mg. of mestranol) for the past 6 months prior to the onset of thrombophlebitis. This case illustrates the fact that low oestrogen content in the oral contraceptive pill does not completely obviate the risk of thromboembolism.

It is interesting to note that this patient developed thrombophlebitis after coming down from the Cameron Highlands. It has been suggested that the low temperature there might play a part in the causation of thrombophlebitis (Tow, 1972).

In Singapore the use of the pill is widespread: a single case of thrombophlebitis may not be significant. It is hoped that this case report would remind those who prescribe the pill to look out for and report further cases so that the extent of this complication may be ascertained.

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