

## CENTRAL RETINAL VEIN THROMBOSIS IN A WOMAN ON CONTRACEPTIVE PILLS

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### SYNOPSIS

A case of central retinal vein occlusion causing loss of vision in the affected eye is reported in a middle-aged woman on contraceptive pills. It is believed that this is the first reported case of retinal venous occlusion in a woman on the pill in the Malaysia-Singapore region. The factors influencing retinal venous occlusion and the increased risks of thrombo-embolic disease in pill-users are briefly discussed.

It is now a recognized fact that women on contraceptive pills are more liable to thrombo-embolic disease than those not on the pill. Walter and Israel (1970) in their textbook "General Pathology" state that 'oral contraceptives may lead to venous and cerebral thrombosis, and it is probable that their oestrogenic component is responsible.' In the Malaysia-Singapore region, although it is believed that the incidence of thrombo-embolic phenomena is low amongst the women here, different authors have reported cases of thrombophlebitis in local women on contraceptive pills (Rajakumar, 1970; Cheah, 1972). The following is believed to be the first reported case in the Malaysia-Singapore region of retinal vein thrombosis in a woman on the pill.

### CASE HISTORY

F.T.H., a 45-year old Chinese housewife, was admitted into the eye ward of the General Hospital, Ipoh, West Malaysia on 15th March, 1973, with a history of sudden and painless loss of vision in her left eye one night, a week before admission. Apart from a mild untreated high blood pressure, she had no history of illness before. She had been married for 16 years, and had 6 children, the eldest being 15 years and the youngest 5 years old. She had been taking a brand of contraceptive pill containing 3 mg. norethisterone acetate and 0.05 mg. ethinyl oestradiol for the last 4 years, and 3 weeks before admission had switched over to another brand of contraceptive pill containing 0.5 mg. norgestrel and 0.05 mg. ethinyl oestradiol. She had no previous history of thrombo-embolic disease.

### General Examination

Her general condition was good. She was referred to the Consultant Physician, who gave her a complete physical check and found her in good health except for a benign hypertension of 170/110 mm. Hg.

### Ophthalmic Examination

The right eye was normal in all respects. The left eye had a visual acuity of 3/60 only. Ophthalmoscopically, the left fundus showed engorged and tortuous retinal veins with scattered haemorrhages all over except supero-temporally, and especially extensive haemorrhages over the infero-temporal quadrant. The picture was diagnostic of a left incomplete central retinal vein thrombosis, especially involving the infero-temporal branch retinal vein. The intra-ocular pressure was normal: 14.6 mm. Hg. in both eyes as shown by the Schiotz tonometer. There were no other ocular abnormalities.

### Investigations

These included the Hess test, bleeding time, clotting time, total white and differential counts, platelet count, fasting and post-prandial blood sugar, blood urea, serum cholesterol and urine examination. All were normal. Chest X-ray showed old calcified tuberculous lesions in the left upper lobe. E.S.R. was 40 mm./hr. and sputum for A.F.B. was negative for 3 successive daily specimens.

### Treatment & Progress

No anticoagulant therapy was instituted. During the period of observation, the intraocular pressure remained normal, the anterior chamber of the affected eye was never shallow, and no iris neovascularisation was seen; however, the patient was put on Gutta Pilocarpine daily to the affected eye as a precaution. Her hypertension was treated

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on the advice of the Physician with oral Ismelin which brought it down to 140/90 in the erect posture.

Since the visual acuity in the affected eye never improved, the patient was referred to the University of Malaya Hospital at Kuala Lumpur for photocoagulation therapy, as suggested by Krill, Archer and Newell (1971), and Campbell and Wise (1973), in the hope that it would be beneficial to her.

## DISCUSSION

Oral contraceptives of oestrogen-progestogen compounds have been found to increase the incidence of thrombo-embolic disease among their users. Evidence for this has been put forward in the United Kingdom by Inman and Vessey (1968) and by Vessey and Doll (1968), who found the risks of mortality and hospital admission from these thrombo-embolic conditions to be six to seven times greater in pill-users than in non pill-users. The oestrogen component of the pill has been inculcated for this. Laboratory studies of clotting have demonstrated an increase in fibrinogen and certain other specific clotting factors as well as an increase in platelet adhesiveness and aggregation, and a reduction in protective antithrombin and fibrinolysis. In the Malaysia-Singapore region, although it is believed that thrombo-embolic phenomena due to the pill are less common among local women, cases of thrombophlebitis have been reported in women on the pill (Rajakumar, 1970; Cheah 1972).

In the field of ophthalmology, the factors influencing retinal vascular occlusion have been discussed by Duke-Elder and Dobree (1967); these include defective arterial flow, stagnation of the circulation, degenerative and inflammatory vascular disease, and glaucoma. Soni and Woodhouse (1971) have stressed that the last condition, namely glaucoma, can be an important cause in 25% of cases of central retinal vein occlusion.

In the case reported here, this middle-aged patient had been on the pill for more than four years. Arterial insufficiency is suggested by the presence of benign hypertension. In our experience, patients presenting with retinal venous occlusions

are usually past middle-age. Clements, Elsby and Smith (1968) report that the majority of their 50 cases of venous occlusion are in the 60 to 79 year age groups. Glaucoma is not a cause here as repeated ocular tension tests have proved normal. No anticoagulant therapy was given to this patient. Lister (1964) has said that he is not convinced that anticoagulants are of any use in this condition. Clements, Elsby and Smith (1968) have tried clofibrate therapy on their cases but have found no evidence of improvement. Krill, Archer, and Newell (1971), and Campbell and Wise (1973) have claimed success in the treatment of retinal venous occlusions with photocoagulation. Hence, this patient has been referred to the University of Malaya Hospital at Kuala Lumpur for photocoagulation therapy in the hope that it would be beneficial to her.

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