PYRROLIDINOMETHYLTETRACYCLINE IN CAVERNOUS SINUS THROMBOSIS*†

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Case Report

A Hindu youth aged 18 was admitted to the S. S. Hospital, B. H. U., Varanasi, on June 15, 1965, in a semi-conscious state (Figure), with proptosis, severe pain, and progressive diminution of vision associated with fever for 15 days. Surprisingly, there was no history of any septic lesion in the region drained by the cavernous sinus (aural discharge, furuncle, etc.).

General Examination.—Pulse 86/min., respiration 28/min., blood pressure 150/80 mm. Hg. There was no anaemia, cyanosis, jaundice, or lymph node enlargement. The cardiovascular, respiratory, and gastro-intestinal systems appeared to be normal. Neck rigidity was present and Kernig's sign was positive. There was tenderness over both mastoid regions.

Total white blood cell count 11,200/c.mm. (polymorphs 87, lymphocytes 12, eosinophils 1); total red blood cell count 5 mill./c. mm.; erythrocyte sedimentation rate 45 mm./l hr.

X rays of the skull and orbits were normal.

Ophthalmological Examination.—Both orbital margins were tender, and the eyes and lids immobile. Both eyes were proptosed and both eyelids grossly swollen, the skin being erythematous. Both lacrimal passages were patent. There was gross conjunctival and circumcorneal congestion. The corneae were hazy and insensitive and the pupils dilated and fixed. The iris, lens, and vitreous were normal. Fundus examination showed slight dilatation and tortuosity of the retinal veins. Only projection of light was present in both eyes; hand movements could not be distinguished.

Diagnosis.—Cavernous sinus thrombosis.

Treatment.—Injections of crystalline penicillin 5 M.U. intramuscularly every 4 hours for 36 hours, and intravenous injections of Reverin 275 mg. were continued for 13 days, followed by 1 tablet Sulphadiazine four times a day for 4 more days.

Terramycin ointment 1 per cent. was applied twice a day, and both eyes were covered by a pad and bandage.

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REVERIN IN CAVERNOUS SINUS THROMBOSIS

Progress.—Improvement began on the third day after admission, and one Decadron tablet was then given three times a day, and the dosage gradually tapered off. The proptosis and tenderness decreased and the pupils started reacting to light, though sluggishly. On July 1, 1965, the patient was finally discharged with only a very slight residual limitation of abduction in both eyes.

Discussion

Reverin (Hoechst Pharmaceuticals) is a pyrrolidinomethyl derivative of tetracycline (molecular formula C_{27}H_{33}O_{8}N_{3}). It is water-soluble and free from any side-effects after intravenous administration. High blood and urinary levels are attained (Weizel and Dana, 1961). Finland, Purcell, Wright, Del Love, Mou, and Kass (1954), Fussgänger (1958), and Dimmling, Hüner, Lutzeyer, and Simon (1958) have shown that the potency and bacteriostatic range of Reverin corresponds to that of tetracycline hydrochloride. It has been widely used by various workers, including Koch and Bohn (1960). Dimmling (1960) showed that a cumulative increase in the cerebrospinal fluid was not likely, and found a higher concentration in the aqueous humour 30 minutes after injection (in rabbits) than in the serum. Avedikian (1961) used Reverin subconjunctivally in thirty cases of serpiginous corneal ulcer. Kühle and Dimmling (1961) advocated its use subconjunctivally as well as intravenously in severe intra-ocular infections. Nagpaul, Charan, and Sarda (1965) used it in the treatment of corneal ulcers.

The use of this drug has not hitherto been reported in cavernous sinus thrombosis. Our patient was so gravely ill as to raise doubts for his survival, with proptosis and severe pain, fever, and loss of vision, but no septic foci. He improved dramatically with 275 mg. Reverin injected intravenously daily for 13 days, and was discharged after 16 days.

Summary

A case is reported of cavernous sinus thrombosis with no history of any preceding septic focus, which was quickly relieved by the use of Reverin.

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Pyrrolidinomethyltetracycline in cavernous sinus thrombosis.

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