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Excellent article A+

CASE STUDY

OPTHALMOLOGY

CENTRAL RETINAL ARTERITIS

By

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INTRODUCTION

Mr Jackson was a 70 year old man who was diagnosed as having Giant Cell Arteritis affecting the central retinal artery.

BACKGROUND

He has a wife and three children. The children are grown up and each with their family are situated around the state. They are not able to see their parents often. Mrs Jackson is a polite, quiet little lady very concerned for her husband. Mr Jackson himself is a timid man, very dependant on his wife when decisions are to be made. He was apprehensive about any procedures and investigations carried out and needed a lot of reassurance.

PAST HISTORY

In 1975 he'd had a sub-endocardial infarction. Whilst driving home one night, he felt a sudden tightening in his chest and severe frontal and occipital headaches with dizziness. He felt faint and decided to pull over and walk around. When he got out of the car, he immediately vomited. Luckily another car was passing just as he dropped to the ground. When he regained consciousness he was in Intensive Care Unit. Arteritis not detected.

In January 1977, Mr Jackson presented to Outpatients with general malaise, weakness, muscular pain, frequency of urine, nocturia, urgency and some incontinence, constipation and slight P.R. bleeding (per rectum), paraesthesia and nausea and vomiting, and blurred vision.

Then in June 1977 he returned with visual disturbances: blurred vision and a "mattress of dots" in front of his eyes, headaches, insomnia and anorexia. He claimed he'd lost 15 kilograms in a short time. When questioned further, the doctor discovered that he had also suffered aching neck and shoulders for a month prior to this visit, with intermittent claudication of the jaw. He complained of dizziness as well.

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PRE-ADMISSION

On examination he was a frail man weighing 65 kilograms. He looked anaemic with a lemon tint. His observations were satisfactory Temperature: 36.7° Centigrade, Pulse: 100 (very nervous), Blood pressure: 130 over 80 mm Hg.

No abnormalities were detected in his abdomen. Urinalysis showed 100++ of albumin. The doctor decided to admit Mr Jackson for further investigations.

ADMISSION

When he arrived on the ward, he was alone, as his wife had gone home to collect pyjamas, toiletries and so on. By this time the patient was extremely anxious and was unable to decide when asked if he wanted a cup of tea. He was given one anyway to try and settle him. Following that he was introduced to the other patients in the ward which eased him more. On being shown around the ward, he asked several repetitive questions relating to his diagnosis, and constantly complained of mild headaches and dots before his eyes. A lot of patience and reassurance was needed for this man.

That night Mr Jackson couldn't sleep, so the resident doctor was notified and ordered Valium 5mg orally stat. This was administered with effect.

The next morning samples of blood were taken with the following results:-

(i) Urea and Electrolytes

- Urea - 50 (Normal Reading - 8 → 28)
- Sodium - 128 (Normal Reading - 130 → 142)
- Potassium - 3 (Normal Reading - 4.0 → 5.4)
- Chloride - 94 (Normal Reading - 100 → 110)

* N.R. = Normal Reading.

(ii) Normalised Serum Thyroxine - 6.8 (N.R. 5.9 → 11.8)

(iii) Erythrocyte Sedimentation Rate - 150 (N.R. 0 → 9)

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(iv) Haemaglobin - 103 (N.R. 130→180)

(v) Liver Function Tests

- Alkaline Phosphotase - 24 (N.R. 37)
- S.G.O.T. - 11 (N.R. 15→40)
- S.G.P.T. - 10 (N.R. 15→35)
- Bilirubin - 0·4 (N.R. 0→1·7)

TREATMENT

Most of these tests were done weekly to check the progress of the treatment. These results show an elevated erythrocyte sedimentation rate; abnormal liver function tests and an anaemic condition - all of which are characteristics of arteritis.

To confirm the diagnosis, a temporal artery biopsy was booked for the following day.

Meanwhile drug therapy was commenced. The doctor ordered:

(i) 40 mgs Prednisolone orally T.D.S - for the prodromal symptoms, headaches and the visual disturbances.

(ii) 500 mgs Paracetamol orally four hourly p.r.n - for joint and muscular pain.

(iii) 5 mgs Valium nocte - continued for settling

The following morning, Mr Jackson "picked over" a light breakfast and then had a shower. When he returned to the ward, his left temporal area was shaved and cleansed with aqueous chlorhexidine solution, followed by a spiritus chlorhexidine. The procedure was carried out under a local anaesthetic, so fasting and pre-medication weren't necessary. He was dressed in theatre gown and boots and cap and his dentures were removed. After having the procedure explained to him for the third time, he was left to rest until the theatre attendants collected him.

The result of the biopsy showed infiltration by chronic inflammatory cells mainly histiocytes. One giant cell was seen. There was

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Treatment (cont'd)

a focus of calcification. The features were consistent with giant cell arteritis involving the central retinal artery. Diagnosis was confirmed.

The Prednisolone dosage was reduced gradually over the following two weeks. However at the end of the second week of reducing the Corticosteroid Therapy, Mr Jackson complained of the headaches and mattress of dots before his eyes again. The dosage was immediately increased to 40 mgm orally T.D.S. Further blood tests revealed that the arteritis was still present although subsiding gradually over the weeks.

DISCHARGE

Two weeks later, after once again reducing the dosage of Prednisolone to 20 mgm orally T.D.S. without any ill effects, Mr Jackson was allowed to go home. He was seen by his consulting doctor who explained his condition and prognosis, in terms that presented the facts without unduly alarming the patient. Mr Jackson was to return to Out Patients the following week for review and any time he suffered visual disturbances..

He was given:

Prednisolone 20 mgs orally T D S

Valium 5 mgs orally nocte

to be administered at home. He'd settled into the ward well and had become an amiable, co-operative patient, although still unsure about procedures. His wife came up to the ward and helped him pack. He was given his Out Patient's appointment card and drugs, and left.

SUMMARY

Mr Jackson may have been suffering arteritis since 1975 which could have been the cause of his infarction. However it wasn't detected until there was involvement of the Central Retinal Artery causing visual disturbanc

Summary (cont'd)

The patient was told by the doctor in simple terms, that an occlusion of the retinal artery may occur causing blindness. This stated the importance of follow up consultations and continuation of the drug therapy.

REFERENCES.

* A patient in Ward 4 of Bendigo Base Hospital.
* Medical Diagnosis and Treatment by Marcus. A. Krupp and Milton J. Chatton.
* British Medical Journal - 23rd April 1977.