GOUT AND UVEITIS*†

REPORT OF A CASE

BY

BRUCE U. KILLEN

Birmingham and Midland Counties Eye Hospital

THE association of uveitis and arthritis with gout is not common and the following case is reported because it demonstrates how the uveitis may sometimes precede the onset of the arthritis and how both may respond to treatment for gout.

W. Lang (1913) and B. T. Lang (1913) estimated gout as the causative factor of uveitis in 3.5 per cent. of cases, but Gilbert (1930) gave the incidence as only 1 per cent. Woods (1956) omitted gout from his classification of the aetiology of uveitis. Ashton and Duke-Elder (1962) stated that urate crystals might be deposited in almost any tissue including those of the eye, and Wood (1936) described their presence in the sclera. Berger and Ballen (1966) reported a case which developed within 4 days of ophthalmic surgery.

Muenzler and Gerber (1963) described a case which presented as uveitis unaccompanied by arthritis; hyperuricaemia was present and the uveitis responded to treatment for gout and topical treatment to the eyes.

Case Report

A man aged 34 years attended the Birmingham Eye Hospital in March, 1966, with a history of spots before the left eye. There was nothing relevant in his personal history. Both parents were alive and well and there was no history of hereditary disease.

Examination.—There was evidence of previous bilateral uveitis with an area of degeneration below the disc of the left eye suggesting previous choroiditis. The ocular pathology advanced and one month later the patient showed bilateral active uveitis with exudates in the anterior chamber, cells and larger opacities being present in the vitreous. There was no sign of posterior synechiae in either eye.

Progress.—The patient was treated for over a year with systemic prednisone and was given topical treatment for the uveitis. During this period there were alternate periods of partial remission and exacerbation of the uveitis, sometimes one eye being more severely involved and sometimes the other. Six months after starting steroid therapy an attempt was made to reduce the dose from 10 to 5 mg. daily, but the patient felt better on the higher dosage and continued at this level until he had exhausted his supply of tablets.

Having been without prednisone for one week, he attended in a weak lethargic condition. There was deterioration of the bilateral uveitis, the distal phalanx of the right index finger was swollen and tender, and he complained of mouth ulcers. The uveitis and general health rapidly improved on recommencing steroids.

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† Address for reprints: Bath Eye Hospital, 1 Belvedere, Bath.

Three months later he complained of pain and swelling of the right ankle accompanied by deterioration of vision in the left eye. There was an increase in the opacities in the anterior chamber and particularly in the vitreous, and no fundus details could be seen.

Diagnosis of Gout.—A diagnosis of gouty uveitis was then considered, and the blood uric acid was found to be 9 mg. per 100 ml. (the upper limit of normal being 5 mg. per 100 ml).

Therapy.—Colchicine 0.5 mg. three times daily for 3 weeks was added to the systemic steroids and the latter were gradually reduced and finally discontinued. Probenecid (an uricosuric agent) 1 g. daily was prescribed to reduce the hyperuricaemia (this was designed to be continued for several years or indefinitely).

There was a steady improvement in the visual acuity and a progressive decrease in the number of the opacities in the anterior chamber and vitreous, but when after 3 weeks the uricosuric agent was continued without colchicine, the ocular condition deteriorated. One exacerbation reduced the vision of the left eye to counting fingers and this occurred on the same day as the patient had drunk two glasses of wine at lunch.

When colchicine 0.5 g. twice daily was resumed the uveitis again improved, and after 3 months the visual acuity with glasses was 6/12 in the right eye and 6/18 + 2 in the left.

An attempt was now made to substitute phenylbutazone for colchicine, but this was followed by increased opacities in the anterior chamber and vitreous. Yellowish-white exudates were visible in the fundi through the hazy vitreous one week after stopping colchicine.

Result.—Colchicine and Probenecid were now prescribed as Colbenacid (probenecid 500 mg., colchicine 0.5 mg.) one tablet twice daily. The ocular condition responded as it had twice done before when colchicine was prescribed, with increasing transparency of the media and improvement in visual acuity.

LABORATORY INVESTIGATIONS

Toxoplasmosis dye test: positive 1 : 4

Rheumatoid arthritis latex test: negative

Wassermann reaction: negative

Kahn test: negative

Blood count: white cells 8,600 with normal differential count

Haemoglobin: 80 mg. per cent.

Erythrocyte sedimentation rate (Wintrobe): 6 mm. in 1st hour

Plasma proteins: total protein 7.25 g. per 100 ml.

albumin 4.75 g. per 100 ml.

globulin 2.49 g. per 100 ml.

electrophoresis normal

Blood urea: 30 mg. per 100 ml.

Serum uric acid: 9 mg. per 100 ml. (after 2 months Probenecid 4.57 mg. per 100 ml.; after 4 months Probenecid 4.25 mg. per 100 ml.)

RADIOLOGY

Chest: normal

Spine: cervical, thoracic, and lumbar spine—"No evidence of ankylosing spondylitis"

Ankles, Feet, Hands, Wrists, Knees: no lesion seen.

Comment

The patient presented with bilateral uveitis which failed to respond to local and systemic steroids. Monarticular arthritis later accompanied exacerbation of the uveitis, the first episode also being accompanied by adrenocortical insufficiency. The serum uric acid

was raised to 9 mg. per 100 ml., and both the uveitis and the arthritis responded to treatment for gout. The following features are worthy of note: the uveitis preceded the arthritis; the uveitis responded to colchicine; continuous daily medication was necessary to prevent relapse after 5 months of uricosuric therapy.

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