Sir,

Anterior ischaemic optic neuropathy associated with Dapsone

We report a 64-year-old insulin-dependent diabetic Caucasian male, on treatment with Dapsone for Dermatitis Herpetiformis, who presented with symptoms of haemolytic anaemia and right anterior ischaemic optic neuropathy (AION). To our knowledge, this is the first report of AION with Dapsone.

Case report

A 64-year-old male insulin-dependent diabetic with Dermatitis Herpetiformis was treated with 100 mg Dapsone daily. The patient was diabetic for 13 years, normotensive, and a nonsmoker.

After 1 month, while on 75 mg of Aspirin, he developed decreased vision on the right eye associated with a headache and shortness of breath.

At initial presentation to another Unit, and having stopped his Dapsone treatment on his own, he had vision

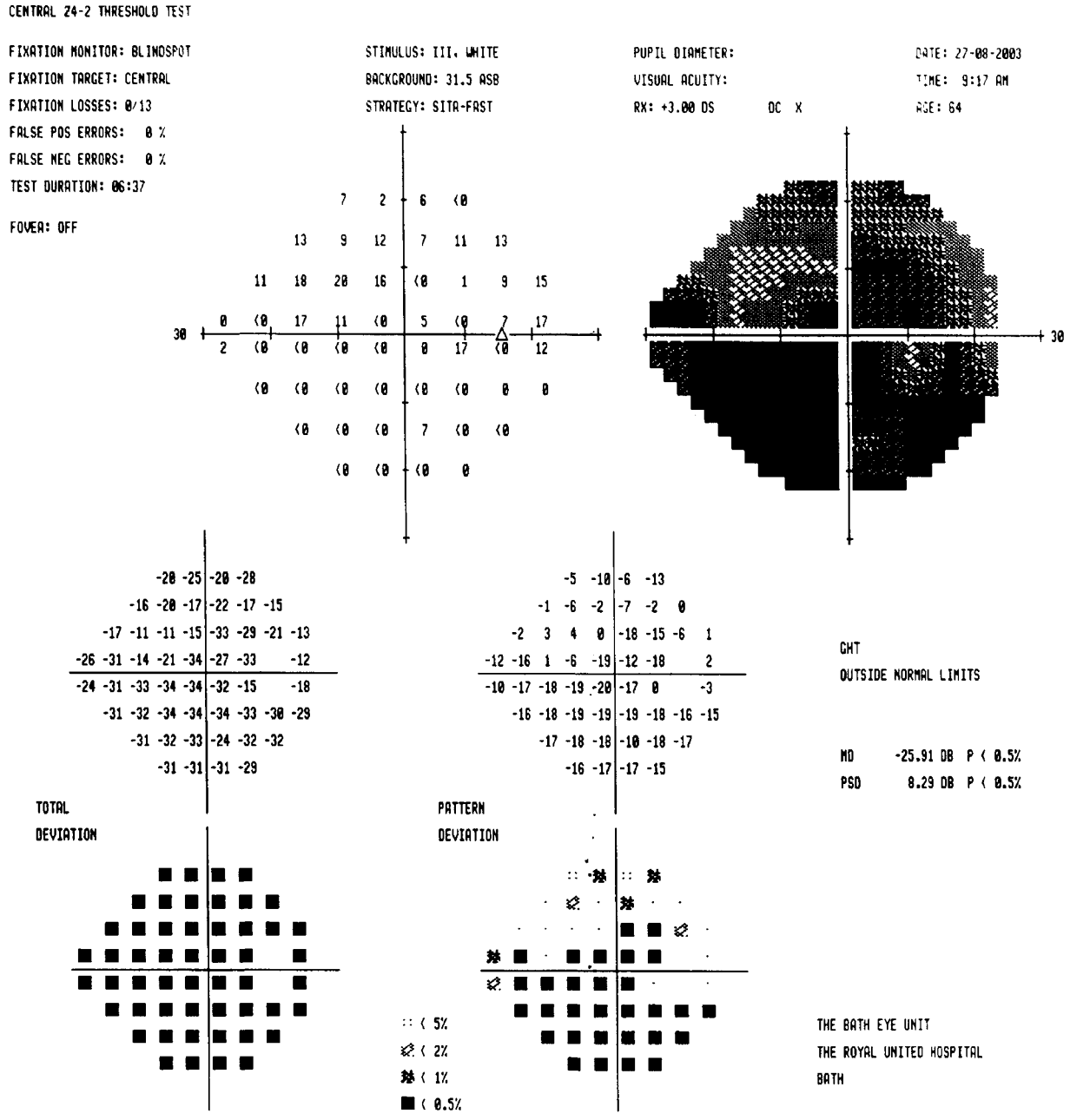

Figure 1 Inferior altitudinal field defect on the patient's right eye.

Table 1 Dapsone side effects

Side effects	*Dose*	*Mechanism*
Methaemoglobinaemia[1]	>200 mg/day	Dapsone oxidation and reduction in erythrocytes
Increased erythrocyte destruction[1]		Dapsone Hydroxylamine production in erythrocytes, promotes premature destruction by spleen macrophages
Haemolytic anaemia in G6PD deficiency[1]		Reduced NADPH production to prevent erythrocyte membrane damage
Agranulocytosis[1]		Immune response or Dapsone granulocyte inhibition postulated
Motor neuropathy[3]	100–600 mg/day	Decreased Dapsone acetylation postulated
Macular infarction[4,5]	1.0 g	Small vessel infarction due to haemolysis
Optic atrophy[2]	600 mg/day	Vascular occlusion postulated

of 6/12 (right) and 6/9 (left), no relative afferent pupillary defect, and right optic disc swelling with flame-shaped haemorrhages. A diagnosis of nonarteritic AION (NAION) was made (ESR 12 mm/h). He was then told that Dapsone was unrelated to his condition and restarted his course. After 10 days, he was referred to us with deterioration of vision to counting fingers on the right. He had stopped his Dapsone as he felt that it had made his vision worse again.

At the same time, he described breathlessness and tachycardia. Fundoscopy revealed a swollen disc on the right. Both discs were crowded with 1.9 mm vertical diameter. Humphrey visual fields showed a generalised reduction of sensitivity on the right eye with an altitudinal defect (Figure 1). Blood tests revealed normocytic anaemia with a haemoglobin of 12.9 g/dl (normal range 13.5–18 g/dl), reticulocyte count 125×10^9 (normal range 10–100×10^9), bilirubin of 24 μmol/l (normal range 1–17 μmol/l).

Fluorescein angiography showed late staining of the disc. Autoantibodies tests were negative and Doppler scan of the carotids did not show any obstruction.

After 1 month, visual acuity was still counting fingers on the right with established optic disc atrophy.

Comment

Recognised risk factors for NAION include diabetes mellitus, hypertension, hypercholesterolaemia, collagen vascular disease, coagulopathy, and blood hyperviscosity. The aetiology is believed to be reduced perfusion and oxygenation in the area of the optic nerve head.

Dapsone may cause haemolysis and agranulocytosis, more frequently in patients with Dermatitis Herpetiformis due to immune hyper-responsiveness[1] (Table 1), optic atrophy without evidence of optic neuritis, motor neuropathy without haemolysis,[2] and macular infarction.[3,4] Dapsone is not thought to cause direct retinal damage at therapeutic levels.[5]

In our case, haemolysis caused by Dapsone in conjunction with insulin-dependent diabetes mellitus, which also affects the functionality of red cells and blood vessels, were likely to be responsible for delayed blood flow and decreased oxygenation of the optic nerve head. This caused the NAION despite administration of 75 mg of Aspirin.

In dermatitis herpetiformis where life-long treatment has to be administered, the risk for ischaemic optic neuropathy should be taken into account, especially in older patients where the prevalence of the risk factors for NAION is increased.

Acknowledgements

Each author states that he has no proprietary interest in the development or marketing of any product mentioned in this study.

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Eye (2006) **20,** 943–945. doi:10.1038/sj.eye.6702050;
published online 7 October 2005

Sir,

Endogeneous endophthalmitis caused by *Sporobolomyces salmonicolor*

Endogenous endophthalmitis is intraocular infection resulting from haematogenous spread from a remote source. We report a case of endophthalmitis caused by *Sporobolomyces salmonicolor* in a reasonably healthy woman. To the best of our knowledge, *S. salmonicolor* endophthalmitis has not been previously reported.

Case report

A 31-year-old lady presented with a 3-day history of decreased vision in the left eye. She had been treated 2 years previously for pelvic inflammatory disease. Her visual acuity was 6/4 in the right eye and 6/18 in the left. The right eye was normal. The left eye showed fibrinous exudates in anterior chamber, posterior synechiae, and vitritis. She was commenced on oral prednisolone and intensive topical steroids, and a cycloplegic. FBC, ACE levels, anti-Toxoplasma Ab titre, Lupus anticoagulant, ANCA, and X-rays of the chest and sacro-iliac spine were reported normal. With little improvement over 2 weeks, vitreous biopsy and intravitreal injection of amikacin 400 μg, vancomycin 1 mg, amphoterecin 5 μg, and dexamethasone 400 μg was performed. Vitreous sample showed pink colored yeast-like organism, possibly *Rhodoturela*. She was started on Tab. fluconazole 200 mg twice a day. Vitreous sample was sent to a tertiary microbiology department where the yeast was identified as *S. salmonicolor*. Sensitivity recommended the use of voriconazole 200 mg twice a day which was continued for 2 months. Improvement was seen within a week. Six months from presentation, the vitreous cavity remains clear on no antifungals with a final visual acuity of 6/12.

Comment

Risk factors for endogenous fungal infections include bacterial sepsis, corticosteroid therapy, immunosuppression, intravenous drug abuse, malignancy, alcoholism, and haemodialysis.

Sporobolomyces, a yeast closely related to *Rhodoturela*, is commonly isolated from environmental sources, such as air, tree leaves, and orange peels. The natural habitats are humans, mammals, birds, the environment, and plants. Infections that have so far been reported due to *Sporobolomyces* are lymphadenitis,[1] dermatitis,[2] cerebral infection, and fungemia.[3] Although *Rhodotorula*-related endophthalmitis has been reported,[4,5,6,7] ophthalmic infection caused by *Sporobolomyces* has not been previously reported.

Our patient had no obvious predisposing risk factors except for previous pelvic inflammatory disease which may have been a source. The low level of suspicion led to the use of systemic steroids prior to the use of systemic antifungal therapy and this may have contributed to the slightly prolonged course. It is therefore important to maintain a high level of suspicion and attempt to identify any possible infective pathogen in cases with unusual presentation.

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