

Editorial: Ocular hypertension

Ocular hypertension exists in an eye where the intraocular pressure is above 21 mmHg but where there is no other detectable pathology. The incidence of ocular hypertension in the United Kingdom is approximately 10 times greater than that of open-angle glaucoma, and only a small proportion of these patients, between 5% and 8%, eventually develop glaucoma. The question then arises as to which patients with ocular hypertension should be treated and which should be kept under intermittent observation. In this respect it is not considered safe to leave any patient with a high pressure untreated unless adequate facilities for regular perimetry and observation of the optic discs are available. On the other hand no form of treatment is without side effects, and the risk and inconvenience of these to the patient must be weighed against the risk of damage to the optic nerve head.

Certain factors have now been identified to guide us in the management of these cases. The state of the optic disc is the single most important criterion, and if the disc gives rise to any suspicion it is safer to treat the patient. Warning signs include a large or enlarging cup disc ratio; a vertical oval cup; asymmetry between the two optic discs greater than 0.2, and a sector haemorrhage on the disc. Age is also important. Studies have shown that the chance of

patients with ocular hypertension developing a field defect increases with age. Similarly patients with an intraocular pressure over 30 mmHg are at greater risk than those with pressures at lower levels. The presence of a family history of open-angle glaucoma also predisposes to the disease. So treatment should be started in any patients with discs that arouse suspicion, especially if the patients are in the older age groups or their intraocular pressure in the higher ranges.

Regular observation is safe for the younger patients with healthy optic nerve heads. It is the people in between who pose problems. In this field recent researches have been directed towards discovering prognostic indices which will help to differentiate, before damage occurs, those patients destined to develop glaucoma. Studies have established an association between diabetes mellitus and glaucoma and suggested possible antigenic links with the disease. One recent survey shows that patients with ocular hypertension who have either of the HLA antigens B12 or B7 are at greater risk of losing field. The results of the response to a single instillation of adrenaline may also prove important in prognosis. The long-term study of these patients is both interesting and exciting and should lead to a better understanding of the management of ocular hypertension.