

FOUR NEW CASES OF NON-ARTERITIC ANTERIOR ISCHAEMIC OPTIC NEUROPATHY IN ONE CLINIC. A CAUSE FOR CONCERN?

Dear Sir,

Since the institution of a formal neuro-ophthalmology service at the Singapore National Eye Centre ten years ago, we have been seeing an increasing number of non-arteritic anterior ischaemic optic neuropathy (NA-AION) cases referred to our clinics, where up to 100 patients are now seen each week. The clinical picture of the condition in Singapore has already been published in your journal.⁽¹⁾ The annual incidence of ischaemic optic neuropathy was found to be 1.08 in 100,000 in a prospective study of neuro-ophthalmic diseases conducted in Singapore from 2002 to 2004.⁽²⁾ An increased incidence of NA-AION has been found elsewhere, and Hayreh from Iowa suggests that we are facing an “epidemic” of the condition (Hayreh SS. Personal communication, February 14, 2009). In an early report from a four-year study, only 19 cases of NA-AION were encountered in an Edinburgh clinic.⁽³⁾

On February 11, 2009, we saw four new and two return patients with NA-AION in one neuro-ophthalmology clinic. The details of the four new cases are tabulated below along with their underlying medical problems.

Patient	Age (years)	Race	Gender	Smoker	Hypertension	Anti-hypertensive medication	Diabetes mellitus	Hyperlipidaemia
1	62	Chinese	Male	Yes	Yes	Bisoprolol and telmisartan	No	Yes
2	72	Chinese	Male	No	Yes	Atenolol	No	Yes
3	67	Chinese	Male	Previously	No	No	Yes	Yes
4	77	Chinese	Female	No	Yes	Atenolol and valsartan	No	Yes

It can be seen that all these patients had significant vascular risk factors for developing the condition; in addition, three were on antihypertensive treatment and two were cigarette smokers. Furthermore, as NA-AION tends to occur on waking or rising in the morning, and is due to perfusion failure in the ciliary blood supply to the optic nerve head, the question of nocturnal hypotension associated with treatment of hypertension arises.⁽⁴⁾ In particular, patients being managed on combination antihypertensive medications may be at greater risk.

Thus, it is important for those prescribing antihypertensive drugs and for ophthalmologists to be aware of this possibility in our many at-risk patients, and to ensure that their treatment is taken early in the day and not at night. Further at risk patients need to have their treatment carefully monitored.

Yours Sincerely,

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REFERENCES

1. Cullen JF, Por YM. Ischaemic optic neuropathy: the Singapore scene. *Singapore Med J* 2007; 48:281-6.
2. Lim SA, Wong WL, Fu E, et al. The incidence of neuro-ophthalmic diseases in Singapore: a prospective study public hospitals. *Ophthalmic Epidemiol* 2009; 16:65-73.
3. Cullen JF. Ischaemic optic neuropathy. *Trans Ophthalmol Soc U K* 1967; 87:759-74.
4. Hayreh SS, Zimmerman MB, Podhajsky P, Alward WL. Nocturnal arterial hypotension and its role in optic nerve head and ocular ischemic disorders. *Am J Ophthalmol* 1994; 117:603-24.