

However, Vogt Koyanagi Harada syndrome follows a relapsing remitting course, often with systemic symptoms despite treatment with immune suppression, unlike sympathetic ophthalmia, which is a potentially curable disease if managed properly in acute stages. An absence of recurrence of disease process on stoppage of therapy, as well as the clinical history of our patient, makes the diagnosis of sympathetic ophthalmia more likely.

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References

- Kilmartin DJ, Dick AD, Forrester JV. Prospective surveillance of sympathetic ophthalmia in the UK and Republic of Ireland. *Br J Ophthalmol* 2000;**84**:259–63.
- Margo CE, Pautler SE. Granulomatous uveitis after treatment of a choroidal melanoma with proton-beam irradiation. *Retina* 1990;**10**:140–3.
- Fries PD, Char DH, Crawford JB, et al. Sympathetic ophthalmia complicating helium ion irradiation of a choroidal melanoma. *Arch Ophthalmol* 1987;**105**:1561–4.
- El-Asrar AM, Al-Obeidan SA. Sympathetic ophthalmia after complicated cataract surgery and intraocular lens implantation. *Eur J Ophthalmol* 2001;**11**:193–6.
- Sabates R. Choroiditis compatible with the histopathologic diagnosis of sympathetic ophthalmia following cyclotherapy of neovascular glaucoma. *Ophthalmic Surg* 1988;**19**:176–82.
- Lam S, Tessler HH, Lam BL, et al. High incidence of sympathetic ophthalmia after contact and noncontact neodymium:YAG cyclotherapy. *Ophthalmology* 1992;**99**:1818–22.
- Kumar N, Chang A, Beaumont P. Sympathetic ophthalmia following ciliary body laser cyclophotocoagulation for rubeotic glaucoma. *Clin Exp Ophthalmol* 2004;**32**:196–8.
- Bechrakis NE, Muller-Stolzenburg NW, Helbig H, et al. Sympathetic ophthalmia following laser cyclocoagulation. *Arch Ophthalmol* 1994;**112**:80–4.
- Gass JDM. Sympathetic ophthalmia following vitrectomy. *Am J Ophthalmol* 1982;**93**:552–8.
- Pollack AL, McDonald HR, Ai E, et al. Sympathetic ophthalmia associated with pars plana vitrectomy without antecedent penetrating trauma. *Retina* 2001;**21**:146–54.

Frequency of non-arteritic anterior ischaemic optic neuropathy in adult Chinese: The Beijing Eye Study

Non-arteritic anterior ischaemic optic neuropathy (NAION) is an acute optic neuropathy occurring predominantly in small optic nerve heads in elderly patients.^{1–3} It has been debated which factors, other than old age and a small optic disc size, predispose to the disease. Data

on the prevalence of NAION in the general population has so far been scarce.^{4,5} They have been completely missing for the Chinese. Therefore, the aim of this study was to evaluate the prevalence of optic nerve damage with the features of a preceding NAION in the Beijing Eye Study.

The Beijing Eye Study is a population-based cohort study in Northern China.⁶ The Medical Ethics Committee of the Beijing Tongren Hospital approved the study protocol and all participants gave their informed consent, according to the Declaration of Helsinki. Of 5324 individuals aged ≥ 40 years residing in the study area, 4439 individuals (2505 women) participated in the eye examination (response rate, 83.4%). This study included 4027 (90.7%) subjects for whom readable optic disc photographs were available. The mean (standard deviation (SD)) age was 55.2 (10) (median, 55; range, 40–101) years. The participants underwent an ophthalmic examination including photographs of the optic disc and macula (Fundus camera CR6-45NM, Canon, Lake Success, New York, USA) and frequency doubling perimetry (screening program C-20-1; Zeiss-Humphrey, Dublin, California, USA) as described in detail previously.⁶ For all eyes with visual acuity < 0.6 and for all eyes with any visual field loss, the photographs of the macula and optic disc were assessed twice by a panel that included several ophthalmologists (YW, LX, JBJ). The diagnostic criteria for NAION were a small optic disc with a cup/disc diameter ratio of ≤ 0.4 , segmental pallor, segmental loss of the retinal nerve fibre layer and segmental visual field loss.^{1–3,7}

Of the 8876 eyes included in the study, only one eye fulfilled the definition of NAION. The age of the male subject with suspected previous NAION was 71 years, his vision was 0.30, and he showed visual field defects in the inferior hemisphere. His optic disc, with a size of 2.0 mm², did not have cupping and exhibited a pale neuroretinal rim in its superior half. The visibility of the retinal nerve fibre layer was markedly reduced in the temporal superior region, and the temporal superior artery was markedly thinner than the temporal inferior artery. In a mathematical sense, the calculated mean (SD) prevalence of NAION in the whole population was 0.02 (1.6%) (95% confidence interval -0.02 to -0.07), or about 1 in 4500 subjects.

Comment

The prevalence rate of 1 in about 4500 Chinese with an age of ≥ 40 years may be at the lower end of the frequency range reported and calculated from previous studies on Caucasian populations in which about 2.3–10.3 patients per 100 000 inhabitants > 50 years were affected with NAION in the US per year.^{4,5} Despite its marked statistical limitation due to the low prevalence rate of NAION, this study may, therefore, support the finding from previous investigations that whites may be affected by NAION more commonly than population groups of another ethnic background such as Chinese.^{4,5} One may consider that the interethnic differences in optic disc size, with the smallest optic discs found in Caucasians, medium-sized optic discs in Asians and largest discs in Afro-Americans, might be responsible for the interethnic differences in the frequency of NAION, which occurs predominantly in small optic nerve heads. The major limitation of this study is the low prevalence rate of NAION so that the prevalence rate for NAION as calculated in the present investigation may have to be

confirmed in even larger population-based studies with > 10 000 subjects included. One may conclude that NAION-associated optic nerve damage is present in 1 out of about 4500 adult Chinese. The figure will be around 100 000 patients with NAION-induced optic nerve damage in the whole of China.

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References

- Hayreh SS, Joos KM, Podhajsky PA, et al. Systemic diseases associated with non-arteritic anterior ischemic optic neuropathy. *Am J Ophthalmol* 1994;**118**:766–80.
- Hayreh SS. Acute ischemic disorders of the optic nerve: pathogenesis, clinical manifestations and management. *Ophthalmol Clin North Am* 1996;**9**:407–42.
- Beck RW, Savino PJ, Repka MX, et al. Optic disc structure in anterior ischemic optic neuropathy. *Ophthalmology* 1984;**91**:1334–7.
- Johns LN, Arnold AC. Incidence of nonarteritic anterior ischemic optic neuritis (AION: population based study). *J Neuroophthalmol* 1994;**14**:38–49.
- Hattenhauer MG, Leavitt JA, Hodge DO, et al. Incidence of nonarteritic anterior ischemic optic neuropathy. *Am J Ophthalmol* 1997;**123**:103–7.
- Xu L, Cui T, Yang H, et al. Prevalence of visual impairment among adults in China. The Beijing Eye Study. *Am J Ophthalmol* 2006;**141**:591–3.
- Jonas JB, Budde WM, Panda-Jonas S. Ophthalmoscopic evaluation of the optic nerve head. *Surv Ophthalmol* 1999;**43**:293–320.

Frequency of spontaneous pulsations of the central retinal vein

The central retinal vein is the only structure in the body which can be examined non-invasively, runs through the cerebrospinal fluid space, and has a shape that depends on the relationship between its internal pressure and the pressure in the space surrounding it. Estimation of central retinal vein pressure is, therefore, helpful in the assessment of cerebrospinal fluid pressure—that is, the intracranial pressure.^{1–4} Central retinal vein pressure may be assessed by determining the external pressure at which the central retinal vein starts to pulsate. This method of assessment is similar to Riva-Rocci's method of indirect measurement of arterial blood pressure. For the central retinal vein, the external pressure is the intraocular pressure. The purpose of the present study was to find out the proportion percentage of subjects in whom the central retinal vein shows spontaneous pulsations, indicating that the pressure in the vein is lower than the intraocular pressure. The assessment of spontaneous retinal venous