BIENNIAL EYE SCREENING IN DIABETIC PATIENTS WITHOUT RETINOPATHY: 10-YEAR EXPERIENCE

Since 1994, diabetic patients without retinopathy in Iceland have received eye screening every other year. Of the 296 diabetic individuals, 172 did not develop diabetic retinopathy during the 10-year observation period. 96 patients developed mild non-proliferative retinopathy, 6 developed clinically significant diabetic macular oedema, 23 developed pre-proliferative retinopathy, and 4 developed proliferative diabetic retinopathy. All the patients that developed macular oedema or proliferative retinopathy had already been diagnosed with mild non-proliferative retinopathy and entered an annual screening protocol before the sight threatening retinopathy developed. No patient had an undue delay in treatment. Olafsdottir et al conclude that every other year screening for diabetic eye disease seems to be safe and effective in diabetics without retinopathy. Such an approach reduces health costs and relieves the diabetic patients from unnecessary clinic visits.

See page 1599

EFFECT OF PUPILLARY DILATION ON GLAUCOMA ASSESSMENT BY OCT

In this observational study involving 38 patients who attended a glaucoma clinic, “fast optic disc” and “fast RNFL thickness” programmes on Stratus OCT were used to measure the RNFL thickness and ONH cup to disc ratio (CDR). Two scans were performed before dilation and two after dilation with tropicamide 1% drops. The scan quality (signal strength score) was higher with dilated than undilated pupil for both RNFL thickness (p = 0.011) and ONH CDR (p = 0.007). The reproducibility was higher with dilated scans for RNFL thickness but there was no difference for ONH CDR. Smith et al conclude that in almost a quarter of patients, acquiring high quality OCT images was not possible without pupillary dilation. The dilated scans were more reproducible and of higher quality than the undilated scans. In addition, the two methods of examination do not appear to be interchangeable, suggesting that follow up examinations should be performed with the pupil in the same condition as baseline. In view of these findings the authors recommend pupillary dilation prior to OCT assessment of glaucoma.

See page 1686

ASSOCIATION BETWEEN INTEGRITY OF FOVEAL PHOTORECEPTOR LAYER AND VISUAL ACUITY IN BRANCH RETINAL VEIN OCCLUSION

To determine prognostic factors for visual outcome, the authors analysed integrity of the photoreceptor layer after resolution of macular oedema (MO) and final visual acuity (VA) in 46 eyes of 46 patients with BRVO. The status of the third high reflectance band (HRB) in the fovea using optical coherence tomography (OCT) at the initial and final visit was studied. Final VA in eyes without a complete HRB was significantly poorer (p = 0.0002). Additionally, initial status of the third HRB in the parafoveal area of unaffected retina was associated with final VA. Tsujikawa et al conclude that status of the third HRB before treatment may be predictive of visual outcome.

See page 1644

NEURORETINAL RIM AND OPTIC CUP SIZE IN ADULT CHINESE: THE BEIJING EYE STUDY

The Beijing eye study is a population-based (40+ years), cross-sectional cohort study including 4439 Chinese subjects. In the present study, a random sample of 781 subjects with normal intraocular pressure (IOP), normal visual field and a normal optic nerve head; and a random sample of 84 subjects with an IOP >21 mm Hg were included. Colour optic disc photographs (30") were morphometrically examined on the computer screen for optic disc, optic cup, peripapillary scleral ring and peripapillary atrophy border. In the normal group, mean rim area measured 1.70 ± 0.30 mm2 (median 1.67 mm2; range 0.91 to 3.20 mm2). It was significantly correlated with optic disc area but was not significantly associated with age, gender, and the known diagnosis of diabetes mellitus, arterial hypertension and hyperlipidemia. In the group with elevated IOP, mean rim area (mean 1.42 ± 0.44 mm2; median 1.45 mm2; range 0.40 to 2.13 mm2) was significantly (smaller than in the normal study group (p<0.001; 95% CI 0.23 to 0.41). Xu et al conclude that the neuroretinal rim is larger (corresponding with a larger optic disc size) in adult Chinese than in adult Caucasians.

See page 1616

OCULAR FEATURES OF BEHÇET’S DISEASE: AN INTERNATIONAL COLLABORATIVE STUDY

A descriptive questionnaire based survey of 25 eye centres (from 14 countries) involving 1465 prevalent cases in 2006 was performed. Recurrent oral aphthous ulcers were reported in 94.5%, skin lesions in 69.5% and genital ulcers in 61.4%. Most of the patients had bilateral and recurrent intraocular inflammation. Panuveitis was significantly more frequent in men than women and tended to have a worse visual outcome. Overall, 23% of the patients had visual acuity ≤20/200 at the final visit. Kitaichi et al note that despite modern treatments, Behçet’s disease still carries a poor visual prognosis with one quarter of the patients becoming blind. The patients with poor vision were more frequently from India, Iran and Japan.

See page 1650

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BJO at a glance