

Cover image: Taken from Maupin *et al*, figure 1. Optic nerve head photograph of a healthy eye, illustrating a violation of the ISNT rule (the temporal rim is larger than the nasal rim).

#### Editors-in-Chief

Keith Barton (UK)  
Jost Jonas (Germany)  
James Chodosh (USA)

#### Editorial Office

BMJ Publishing Group Ltd,  
BMA House, Tavistock Square,  
London WC1H 9JR, UK

T: +44 (0)20 7111 1105

E: [bjophth@bmj.com](mailto:bjophth@bmj.com)

Twitter: @BJOphthalmology

ISSN: 0007-1161 (print)  
ISSN: 1468-2079 (online)

Impact factor: 3.611

**Disclaimer:** The Editor of *British Journal of Ophthalmology* has been granted editorial freedom and *British Journal of Ophthalmology* is published in accordance with editorial guidelines issued by the World Association of Medical Editors and the Committee on Publication Ethics. *British Journal of Ophthalmology* is primarily intended for healthcare professionals and its content is for information only. The Journal is published without any guarantee as to its accuracy or completeness and any representations or warranties are expressly excluded to the fullest extent permitted by law. Readers are advised to independently verify any information on which they choose to rely. Acceptance of advertising by *British Journal of Ophthalmology* does not imply endorsement. BMJ Publishing Group Limited shall not be liable for any loss, injury or damage howsoever arising from *British Journal of Ophthalmology* (except for liability which cannot be legally excluded).

**Copyright:** © 2020 BMJ Publishing Group Ltd. All rights reserved; no part of this publication may be reproduced in any form without permission.

*British Journal of Ophthalmology* is published by BMJ Publishing Group Ltd and printed in the UK on acid-free paper.

*British Journal of Ophthalmology* ISSN 0007-1161 (USPS 2159) is published monthly by BMJ Publishing Group Ltd, BMA House, Tavistock Square, WC1H 9JR London. Airfreight and mailing in the USA by agent named WN Shipping USA, 156-15, 146th Avenue, 2nd Floor, Jamaica, NY 11434, USA. Periodicals postage paid at Brooklyn, NY 11256. US Postmaster: Send address changes to *British Journal of Ophthalmology*, WN Shipping USA, 156-15, 146th Avenue, 2nd Floor, Jamaica, NY 11434, USA. Subscription records are maintained at BMA House, Tavistock Square WC1H 9HR London. Air Business Ltd is acting as our mailing agent.

## Contents

Volume 104 Issue 10 | **BJO** October 2020

### Editorial

#### 1329 Is physical activity protective against myopia?

*J Foreman, J G Crowston, M Dirani*

### Review

#### 1331 Inherited cataracts: molecular genetics, clinical features, disease mechanisms and novel therapeutic approaches

*V Berry, M Georgiou, K Fujinami, R Quinlan, A Moore, M Michaelides*

### Clinical science

#### 1338 Thirty-five-year trend in the prevalence of refractive error in Austrian conscripts based on 1.5 million participants

*L Yang, C Vass, L Smith, A Juan, T Waldhör*

#### 1345 Outcomes in randomised controlled trials of multifocal lenses in cataract surgery: the case for development of a core outcome set

*J R Evans, S R de Silva, M Ziaei, V Kirithi, M D Leyland*

#### 1350 Correlation between lens thickness and lens density in patients with mild to moderate cataracts

*M A Henriquez, J A Mejías, M Rincon, L Izquierdo Jr, P S Binder*

#### 1358 Hybrid Descemet Membrane Endothelial Keratoplasty (H-DMEK): results of a donor insertion pull-through technique using donor stroma as carrier

*J H Woo, H M Htoon, D Tan*

#### 1363 Conjunctival lymphangiectasia as a biomarker of severe systemic disease in Ser77Tyr hereditary transthyretin amyloidosis

*R Bunod, D Adams, C Cauquil, B Francou, C Labeyrie, H Bourenane, C Adam, V Algalarrondo, M Slama, M Darce-Bello, E Barreau, M Labetoulle, A Rousseau*

#### 1368 Epidemiology of invasive ocular surface squamous neoplasia in Canada during 1992–2010

*R Darwich, F M Ghazawi, M Le, E Rahme, N Alghazawi, A Zubarev, L Moreau, D Sasseville, M N Burnier Jr, I V Litvinov*

#### 1373 Effect of a formulated eye drop with *Leptospermum* spp honey on tear film properties

*J Tan, T Jia, R Liao, F Stapleton*

#### 1378 Outcomes of phacoemulsification combined with two iStent inject trabecular microbypass stents with or without endocyclophotocoagulation

*A D Pantalon, A D De Oliveira Barata, M Georgopoulos, G Ratnarajan*

#### 1384 Comparison of early versus late laser goniopuncture following deep sclerectomy for the management of open-angle glaucoma

*D Holmes, M M P Hui, C Clement*

#### 1390 Predictors of selective laser trabeculoplasty success in open angle glaucoma or ocular hypertension: does baseline tonography have a predictive role?

*P Alaghband, E A Galvis, A Daas, A Nagar, L Beltran-Agulló, A P Khawaja, S Goyal, K S Lim*

#### 1394 Development and validation of a machine learning, smartphone-based tonometer

*Y Wu, I Luttrell, S Feng, P P Chen, T Spaide, A Y Lee, J C Wen*

#### 1399 Diagnostic performance of modern imaging instruments in glaucoma screening

*E Karvonen, K Stoor, M Luodonpää, P Hägg, T Limonen, J Liinamaa, A Tuulonen, V Saarela*

#### 1406 Progression from ocular hypertension to visual field loss in the English hospital eye service

*S R Kelly, A P Khawaja, S R Bryan, A Azuara-Blanco, J M Sparrow, D P Crabb*

#### 1412 Accuracy of the ISNT rule and its variants for differentiating glaucomatous from normal eyes in a population-based study

*E Maupin, F Baudin, L Arnould, A Seydou, C Binquet, A M Bron, C P Creuzot-Garcher*

**MORE CONTENTS ►**





This article has been chosen by the Editor to be of special interest or importance and is freely available online.

This article has been made freely available online under the BMJ Journals open access scheme.  
See <http://authors.bmj.com/open-access>

This journal is a member of and subscribes to the principles of the Committee on Publication Ethics  
[www.publicationethics.org.uk](http://www.publicationethics.org.uk)

When you have finished with this magazine please recycle it.

- 1418** Evaluation of contrast sensitivity in patients with advanced glaucoma: comparison of two tests  
*A A Jammal, B G Ferreira, C S Zangalli, J R Vianna, A C Thompson, P H Artes, V P Costa, A S C Reis*
- 1423** Age as a risk factor for steroid-induced ocular hypertension in the non-paediatric population  
*W Choi, H W Bae, E Y Choi, M Kim, E W Kim, C Y Kim, M Kim, G Je Seong*
- 1430** Retinal vessel diameter changes after 6 months of treatment in the Idiopathic Intracranial Hypertension Treatment Trial  
*H E Moss, R A Hollar, W S Fischer, S E Feldon*
- 1435** Relation between retinal vessel diameter and posterior segment optical coherence tomography variables in middle-aged Caucasians: the Northern Finland Birth Cohort Eye Study  
*M I Geneid, J J Uusitalo, I L Leiviskä, V O Saarela, M J Liinamaa*
- 1443** Retinal pigment epithelial atrophy after anti-vascular endothelial growth factor therapy for polypoidal choroidal vasculopathy  
*H J Cho, K Kim, S H Lim, D H Kang, J W Kim*
- 1448** Genetic influence on macular retinal nerve fibre layer thickness according to retinal subfield  
*S Hwang, M Kong, H Ko, D-I Ham, Y-M Song*
- 1453** OCTA characterisation of microvascular retinal alterations in patients with central serous chorioretinopathy  
*M Battista, E Borrelli, M Parravano, F Gelormini, M Tedeschi, D De Geronimo, R Sacconi, L Querques, F Bandello, G Querques*
- 1458** Orbital MRI versus fundus photography in the diagnosis of optic nerve hypoplasia and prediction of vision  
*J Kruglyakova, P Garcia-Filion, M Nelson, M Borchert*
- 1462** Effects of plaque brachytherapy and proton beam radiotherapy on prognostic testing: a comparison of uveal melanoma genotyped by microsatellite analysis  
 OPEN ACCESS  
*S Thornton, S E Coupland, H Heimann, R Hussain, C Groenewald, A Kacperke, B Damato, A Taktak, A Eleuteri, H Kalirai*
- 
- Laboratory science**
- 1467** Association of toll-like receptor 10 polymorphisms with paediatric idiopathic uveitis in Han Chinese  
 OPEN ACCESS  
*M Lv, H Tan, J Deng, L Du, G Su, Q Wang, Z Zhong, X Tan, Q Cao, A Kijlstra, P Yang*
- 1472** Association of the *ZC3H11B*, *ZFHX1B* and *SNTB1* genes with myopia of different severities  
*S M Tang, F F Li, S Y Lu, K W Kam, P O S Tam, C C Tham, C P Pang, J C S Yam, L J Chen*