



Editors-in-Chief
Frank Larkin (UK)

Deputy Editors
Ludwig Heindl (Germany)
Mingguang He (Hong Kong)

Editorial Office
BMJ Publishing Group Ltd,
BMA House, Tavistock Square,
London WC1H 9JR, UK
T: +44 (0)20 7111 1105
E: bjo@bmj.com
Twitter: @BJOphthalmology

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

Impact factor: 4.1

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: © 2024 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, typeset by Exeter Premedia Services Private Limited, Chennai, India 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 World Container Inc. 150-15, 183rd Street, Jamaica, NY 11413, USA. Periodicals postage paid at Brooklyn, NY 11256. US Postmaster: Send address changes to *British Journal of Ophthalmology*, World Container Inc, 150-15, 183rd Street, Jamaica, NY 11413, USA. Subscription records are maintained at BMA House, Tavistock Square WC1H 9JR London. Air Business Ltd is acting as our mailing agent.

Contents

Volume 108 Issue 3 | **BJO** March 2024

Reviews

- 329** New insights on the role of microRNAs in retinal Müller glial cell function
W Jiang, S He, L Liu, X Meng, J Lu, J Li, T Chen, Y Xu, Q Xiao, L Qi, J Zhang



Cornea and ocular surface

- 336** Accurate detection and grading of pterygium through smartphone by a fusion training model
Y Liu, C Xu, S Wang, Y Chen, X Lin, S Guo, Z Liu, Y Wang, H Zhang, Y Guo, C Huang, H Wu, Y Li, Q Chen, J Hu, Z Luo, Z Liu



- 343** Collagen type XII is undetectable in keratoconus Bowman's layer
M Rigi, H-S Son, L Moon, M Matthaai, D Sriksmaran, A S Jun, C G Eberhart, U S Soiberman

Glaucoma

- 349** Differentiating stages of functional vision loss from glaucoma using the Disc Damage Likelihood Scale and cup:disc ratio
H Philippin, E N Matayan, K M Knoll, E Macha, S Mbishi, A Makupa, C D Matsinhe, I V da Gama, M J Monjane, J A Ncheda, F A F Mulobuana, E Muna, N F Guylene, G Gazzard, A P Marques, P Shah, D Macleod, W Makupa, M J Burton



- 357** Influence of choroidal microvasculature dropout on progressive retinal nerve fibre layer thinning in primary open-angle glaucoma: comparison of parapapillary β -zones and γ -zones
H S Hwang, E J Lee, J-A Kim, S H Lee, T-W Kim

- 366** Iris volume change with physiologic mydriasis to identify development of angle closure: the Zhongshan Angle Closure Prevention Trial
C Liao, H Quigley, Y Jiang, S Huang, W Huang, D Friedman, P J Foster, M He

- 372** Central visual field damage in glaucoma eyes with choroidal microvasculature dropout with and without high axial myopia
E Micheletti, N El-Nimri, T Nishida, S Moghimi, J Rezapour, M A Fazio, M H Suh, C Bowd, A Belghith, M Christopher, J B Jonas, R N Weinreb, L M Zangwill

Uveitis

- 380** Long-term visual acuity outcomes following cataract surgery in eyes with ocular inflammatory disease
S Gangaputra, C Newcomb, R Armour, D Choi, G Ying, S Groth, H Begum, T Fitzgerald, P Artornsombudh, E Daniel, N Bhatt, S Foster, D Jabs, G Levy-Clarke, R Nussenblatt, J T Rosenbaum, H N Sen, E Suhler, J Thorne, K Dreger, J Buchanich, J H Kempen, Systemic Immunosuppressive Therapy for Eye Diseases (SITE) Research Group
- 386** Assessment of choriocapillaris and choroidal vascular changes in posterior uveitis using swept-source wide-field optical coherence tomography angiography
M Tian, G Zeng, M Zinkernagel, C Tappeiner, S Wolf, M R Munk

Retina

- 391** Incidence and multimodal imaging characteristics of macular neovascularisation subtypes in Chinese neovascular age-related macular degeneration patients
Y Zhang, Y Gan, Y Zeng, X Zhuang, X Zhang, Y Ji, Y Su, F Wen
- 398** Acute posterior multifocal placoid pigment epitheliopathy: clinical presentation and risk of stroke and transient ischaemic attack
R L Niederer, P D Samalia, Y-H Chen, J K S Goh, E E Cornish, S Guest, P J McCluskey, L L Lim, J L Sims, S Lightman, O Tomkins-Netzer

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




When you have finished with this magazine please recycle it.


- 405** Sympathetic nervous system activity is associated with choroidal thickness and axial length in school-aged children
 OPEN ACCESS
S Lin, B Zhu, T Wang, H Wang, X Xu, S Wang, Y Yin, Z Xiang, Y Qian, Z Zhang, L Cui, H Zou, X He, J Zhu, Y Ma

- 411** Pathologic myopia in highly myopic patients with high axial anisomyopia
J Li, Y S Dan, S Q Chua, Q Y Wong, R S Chong, M Ang, SNEC Retina Group, C W Wong, Q V Hoang, SNEC Retina Group

- 417** Ensemble of deep convolutional neural networks is more accurate and reliable than board-certified ophthalmologists at detecting multiple diseases in retinal fundus photographs
 OPEN ACCESS
P U Pandey, B G Ballios, P G Christakis, A J Kaplan, D J Mathew, S Ong Tone, M J Wan, J A Miceli, J C Y Wong

- 424** Application of artificial intelligence system for screening multiple fundus diseases in Chinese primary healthcare settings: a real-world, multicentre and cross-sectional study of 4795 cases
 OPEN ACCESS
C Gu, Y Wang, Y Jiang, F Xu, S Wang, R Liu, W Yuan, N Abudureyimu, Y Wang, Y Lu, X Li, T Wu, L Dong, Y Chen, B Wang, Y Zhang, W B Wei, Q Qiu, Z Zheng, D Liu, J Chen

- 432** Deep segmentation of OCTA for evaluation and association of changes of retinal microvasculature with Alzheimer's disease and mild cognitive impairment
 OPEN ACCESS
J Xie, Q Yi, Y Wu, Y Zheng, Y Liu, A Macerollo, H Fu, Y Xu, J Zhang, A Behera, C Fan, A F Frangi, J Liu, Q Lu, H Qi, Y Zhao

- 440** Randomised controlled trial of adjunctive triamcinolone acetonide in eyes undergoing vitreoretinal surgery following open globe trauma: The ASCOT study
 EDITOR'S CHOICE
E J Casswell, S Cro, V R Cornelius, P J Banerjee, T M Zvobgo, R Tudor Edwards, V Ezeofor, B Anthony, S M Shahid, C Bunce, J Kelly, C Murphy, E Robertson, D Charteris, The ASCOT Investigator Study Group

Ocular oncology

- 449** Correlating somatic copy number alteration in aqueous humour cfDNA with chemotherapy history, eye salvage and pathological features in retinoblastoma
Y Luo, M Xu, L Yang, Y Yao, J L Berry, L Xu, X Wen, X He, M Han, X Fan, J Fan, R Jia

- 457** Impact of tumour volume and treatment delay on the outcome after linear accelerator-based fractionated stereotactic radiosurgery of uveal melanoma
 OPEN ACCESS
S Sreenivasa, M Wösle, Y Gager, D Vordermark, L Grajewski, L Krause, I F Ciernik

- 465** Orbital and periocular complications in patients with sinonasal tumours with orbital invasion
J Zhao, X Jiang, E Hanna, S Y Su, A Moreno, B Gunn, S J Frank, R Ferrarotto, J Ning, B Esmaeli

Paediatric ophthalmology

- 471** Validation of the East London Retinopathy of Prematurity algorithm to detect treatment-warranted retinopathy of prematurity: a cohort study
S Moorthy, G G W Adams, G Smith, S Biswas, W Aliyan, R Bhudia, A Saiyed, S Husain

- 476** Incidence of and risk factors for suspected and definitive glaucoma after bilateral congenital cataract surgery: a 5-year follow-up
J Wang, X Wu, Q Wang, F Zhou, H Chen, W Chen, D Lin, X Zhang, R Wang, J Chen, Z Liu, Z Lin, X Li, J Li, Y Han, Y Liu, H Lin, W Chen

Epidemiology

- 484** Self-reported dual sensory impairment and related factors: a European population-based cross-sectional survey
 OPEN ACCESS
N Leveziel, S Marillet, T Braithwaite, T Peto, P Ingrand, S Pardhan, A M Bron, J B Jonas, S Resnikoff, L Julie Anne, A C Davis, C M McMahon, R R A Bourne