



Cover image: Taken from Sihota R *et al*, figure 2. The vertical slit lamp beam assessment of peripheral anterior chamber depth and angle and ASOCT assessment of the angle in grades I, II, III and IV. See page 962.

#### 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: [bjournal@bmj.com](mailto:bjournal@bmj.com)  
Twitter: @BJOphthalmology

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

Impact factor: 3.384

**Disclaimer:** British Journal of Ophthalmology is owned and published by BMJ Publishing Group Ltd, a wholly owned subsidiary of the British Medical Association. The owner grants editorial freedom to the Editor of British Journal of Ophthalmology.

British Journal of Ophthalmology follows guidelines on editorial independence produced by the World Association of Medical Editors and the code on good publication practice of the Committee on Publication Ethics.

British Journal of Ophthalmology is intended for medical professionals and is provided without warranty, express or implied. Statements in the journal are the responsibility of their authors and advertisers and not authors' institutions, the BMJ Publishing Group Ltd or the BMA unless otherwise specified or determined by law. Acceptance of advertising does not imply endorsement.

To the fullest extent permitted by law, the BMJ Publishing Group Ltd shall not be liable for any loss, injury or damage resulting from the use of British Journal of Ophthalmology or any information in it whether based on contract, tort or otherwise. Readers are advised to verify any information they choose to rely on.

**Copyright:** © 2019 BMJ Publishing Group Ltd. All rights reserved; no part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise with out the prior permission of British Journal of Ophthalmology.

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) is published monthly by BMJ Publishing Group and is distributed in the USA by Air Business Ltd. Periodicals postage paid at Jamaica NY 11431 POSTMASTER: send address changes to British Journal of Ophthalmology, Air Business Ltd, c/o WN Shipping USA, 156-15, 146th Avenue, 2nd Floor, Jamaica, NY 11434, USA.

## Global issues

**863** Prevalence and causes of vision loss in North Africa and Middle East in 2015: magnitude, temporal trends and projections  
*R Kahloun, M Khairallah, S Resnikoff, M V Cicinelli, S R Flaxman, A Das, J B Jonas, J E Keefe, J H Kempen, J Leasher, H Limburg, K Naidoo, K Pesudovs, A J Silvester, N Tahhan, H R Taylor, T Y Wong, R R A Bourne, on behalf of the Vision Loss Expert Group of the Global Burden of Disease Study*

**871** Prevalence and causes of blindness and vision impairment: magnitude, temporal trends and projections in South and Central Asia  
*V Nangia, J B Jonas, R George, V Lingam, L Ellwein, M V Cicinelli, A Das, S R Flaxman, J E Keefe, J H Kempen, J Leasher, H Limburg, K Naidoo, K Pesudovs, S Resnikoff, A J Silvester, N Tahhan, H R Taylor, T Y Wong, R R A Bourne, on behalf of the Vision Loss Expert Group of the Global Burden of Disease Study*

**878** Prevalence and causes of vision loss in South-east Asia and Oceania in 2015: magnitude, temporal trends and projections  
*J E Keefe, R J Casson, K Pesudovs, H R Taylor, M V Cicinelli, A Das, S R Flaxman, J B Jonas, J H Kempen, J Leasher, H Limburg, K Naidoo, A J Silvester, G A Stevens, N Tahhan, T Y Wong, S Resnikoff, R R A Bourne, on behalf of the Vision Loss Expert Group of the Global Burden of Disease Study*

**885** Prevalence and causes of vision loss in Latin America and the Caribbean in 2015: magnitude, temporal trends and projections  
*J L Leasher, T Braithwaite, J M Furtado, S R Flaxman, V C Lansingh, J C Silva, S Resnikoff, H R Taylor, R R A Bourne, On behalf of the Vision Loss Expert Group of the Global Burden of Disease Study*

## Clinical science

**894** Racial differences and determinants of macular thickness profiles in multiethnic Asian population: the Singapore Epidemiology of Eye Diseases Study  
*K H Wong, Y-C Tham, D Q Nguyen, W Dai, N Y Q Tan, S Mathijia, K Neelam, C Y Cheung, C Sabanayagam, L Schmetterer, T Y Wong, C-Y Cheng*

**900** Factors influencing macular atrophy growth rates in neovascular age-related macular degeneration treated with ranibizumab or aflibercept according to an observe-and-plan regimen  
*I Mantel, M Zola, S De Massoungnes, A Dirani, C Bergin*

**906** Paramacular temporal atrophy in sickle cell disease occurs early in childhood  
*G C Martin, E Albuissou, V Brousse, M de Montalembert, D Bremond-Gignac, M P Robert*

**911** Choriocapillaris impairment around the atrophic lesions in patients with geographic atrophy: a swept-source optical coherence tomography angiography study  
*M Nassisi, Y Shi, W Fan, E Borrelli, A Uji, M S Ip, S R Sadda*

**918** Subfoveal choroidal thickness as a prognostic factor in exudative age-related macular degeneration  
*J B Kumar, K M Wai, J P Ehlers, R P Singh, A V Rachitskaya*

**922** Intravitreal injection of a Rho-kinase inhibitor (fasudil) combined with bevacizumab versus bevacizumab monotherapy for diabetic macular oedema: a pilot randomised clinical trial  
*H Ahmadieh, R Nourinia, A Hafezi-Moghadam, H Sabbaghi, S Nakao, S Zandi, M Yaseri, Z Tofghi, S Akbarian*

**928** Ocular findings and blood flow in patients with Takayasu arteritis: a cross-sectional study  
*F Esen, R Ergelen, F Alibaz-Öner, G Çelik, H Direskeneli, H Kazakoğlu*

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.

- 933** Macular spatial distribution of preserved autofluorescence in patients with choroideremia  
*A H Hariri, M S Ip, A Girach, B L Lam, M D Fischer, E-M Sankila, M E Pennesi, F G Holz, R E Maclaren, D G Birch, C B Hoyng, I M MacDonald, G C Black, S H Tsang, N M Bressler, K E Stepien, M Larsen, M B Gorin, I Meunier, A R Webster, S Sadda, on behalf of For Natural History of the Progression of Choroideremia (NIGHT) Study Group*
- 938** Long-term outcome of treat and extend intravitreal ziv-aflibercept therapy  
*A M Mansour, A Charbaji, M E Farah, H A Mansour, J Chhablani*
- 942** Ultra-wide-field angiography findings in acute Vogt-Koyanagi-Harada disease  
*P Kim, H J Sun, D-I Ham*
- 949** Repeatability and comparability of peripapillary vessel density measurements of high-density and non-high-density optical coherence tomography angiography scans in normal and glaucoma eyes  
*J P Venugopal, H L Rao, R N Weinreb, S Dasari, M Riyazuddin, Z S Pradhan, N K Puttaiah, S Devi, K Mansouri, C A B Webers*
- 955** Is vision-related quality of life impaired in patients with preperimetric glaucoma?  
*F B Daga, C P B Gracitelli, A Dimiz-Filho, F A Medeiros*
- 960** 'Van Herick Plus': a modified grading scheme for the assessment of peripheral anterior chamber depth and angle  
*R Siotia, N Kamble, A K Sharma, A Bhari, A Gupta, N Midha, H Selvan, T Dada, V Gupta, R M Pandey*
- 966** Improvement in psychiatric symptoms after strabismus surgery in adolescent patients in long-term follow-up  
*S Ozates, M Ezerbolat Ozates, C U Can, S Polat, H H Yasar, B Taskale, A K Cogus*
- 971** Pupillary light reaction in preclinical Alzheimer's disease subjects compared with normal ageing controls  
*G P Van Stavern, L Bei, Y-B Shui, J Huecker, M Gordon*
- 976** Staged excision of primary periocular basal cell carcinoma: absence of residual tumour in re-excised specimens: a 10-year series  
*L A McGrath, A Meeney, Z I Currie, H S Mudhar, J H Tan*
- 980** Prognostic factors for local recurrence, metastasis and survival for sebaceous carcinoma of the eyelid: observations in 100 patients  
*H-S Sa, M L Rubin, S Xu, J Ning, M Tetzlaff, O Sagiv, T J Kandl, B Esmali*
- 985** Elastin modulation and modification by homocysteine: a key factor in the pathogenesis of Pseudoexfoliation syndrome?  
*M Rebecca, R Gayathri, R Bhuvanasundar, K Sripriya, B Shantha, N Angayarkanni*
- 993** Distribution of preoperative and postoperative astigmatism in a large population of patients undergoing cataract surgery in the UK  
*A C Day, M Dhariwal, M S Keith, F Ender, C Perez Vives, C Miglio, L Zou, D F Anderson*
- 1001** Early retinal and choroidal OCT and OCT angiography signs of inflammation after uncomplicated cataract surgery  
*E Pilotto, F Leonardi, G Stefanon, E Longhin, T Torresin, D Deganello, F Cavarzeran, G Miglionico, R Parrozzani, E Midena*

---

## Review

- 1008** When biology supports clinical diagnosis: review of techniques to diagnose ocular toxoplasmosis  
*V Greigert, E Di Foggia, D Filsetti, O Villard, A W Pfaff, A Sauer, E Candolfi*