



Cover image: Undine and drop bottles. Courtesy of Mr Richard Keeler, Curator, Museum of the Royal College of Ophthalmologists. See p 26.

#### Editors-in-Chief

Harminder S Dua (UK)  
Arun D Singh (USA)

#### Website Editor

Robert Bhisitkul (USA)

#### Translation Editors

Evelyn Fu (USA)  
José Gomes (Brazil)  
Alvin Kwok (Hong Kong)  
Merce Morral Palau (Spain)  
David Pelayos (Argentina)  
Daniel de Souza Pereira (Brazil)

#### Editorial Office

BMJ Publishing Group Ltd,  
BMA House, Tavistock Square,  
London WC1H 9JR, UK  
T: +44 (0)20 7383 6170  
F: +44 (0)20 7383 6668  
E: [bjournal@bmjgroup.com](mailto:bjournal@bmjgroup.com)

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

Impact factor: 2.859

**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:** © 2010 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 without the prior permission of British Journal of Ophthalmology.

British Journal of Ophthalmology is published by BMJ Publishing Group Ltd, typeset by The Charlesworth Group and printed in the UK on acid-free paper by Latimer Trend & Co Ltd, Plymouth.

British Journal of Ophthalmology (ISSN 0007-1161) is published monthly by BMJ Publishing Group and distributed in the US by Mercury International Ltd. Periodicals postage paid at Rahway, NJ. POSTMASTER: Send address changes to BJO, Mercury International Ltd, 365 Blair Road, Avenel, NJ 07001, USA

## Editorial

- 1 Ocular anaesthesia and the never-ending story  
*P Athanasiov, T Henderson*

## Review

- 2 Ranibizumab (Lucentis) in neovascular age-related macular degeneration: evidence from clinical trials  
*P Mitchell, J-F Korobelnik, P Lanzetta, F G Holz, C Prünte, U Schmidt-Erfurth, Y Tano, S Wolf*

## Global issues

- 14 Mapping trachoma in Nasarawa and Plateau States, central Nigeria  
*J D King, N Jip, Y S Jugu, A Othman, A F Rodgers, D Y Dajom, E Miri, P M Emerson*
- 20 Increased hyperopia with ageing based on cycloplegic refractions in adults: the Tehran Eye Study  
*H Hashemi, R Iribarren, I G Morgan, M KhabazKhoob, K Mohammad, A Fotouhi*

## Innovations

- 24 Computer simulation-assisted rotational autokeratoplasty with pupillary enlargement for management of cases with partial corneal opacification  
*T Agarwal, N Sharma, V Jhanji, R B Vajpayee*

## Cover illustration

- 26 All for a drop: Undines and drop bottles  
*R Keeler, A D Singh, H S Dua*

## Original articles

### Clinical science

- 28 A novel Ocular Anaesthetic Scoring System, OASS, tool to measure both motor and sensory function following local anaesthesia  
*J Cehajic-Kapetanovic, P N Bishop, S Liyanage, T King, M Muldoon, I M Wearne*
- 33 Intraocular pressures after ketamine and sevoflurane in children with glaucoma undergoing examination under anaesthesia  
*L Jones, V Sung, G Lascaratos, H Nagi, R Holder*
- 36 A pilot randomised controlled trial comparing the post-operative pain experience following vitrectomy with a 20-gauge system and the 25-gauge transconjunctival system  
*L Wickham, C Bunce, A S Kwan, J Bainbridge, G W Aylward*

- 41 Macular morphology and visual acuity after macular hole surgery with or without internal limiting membrane peeling  
*U C Christensen, K Krøyer, B Sander, T M Jorgensen, M Larsen, M la Cour*
- 48 Subretinal coapplication of recombinant tissue plasminogen activator and bevacizumab for neovascular age-related macular degeneration with submacular haemorrhage  
*F Treumer, C Klatt, J Roeder, J Hillenkamp*
- 54 New patterns of retinal collateral circulation are exposed by a retinal functional imager (RFI)  
*G Landa, R B Rosen*
- 59 Relationship between different fluorescein and indocyanine green angiography features in multiple evanescent white dot syndrome  
*R dell'Omo, R Wong, M Marino, K Konstantopoulou, C Pavesio*
- 64 A comparison between microperimetry and standard achromatic perimetry of the central visual field in eyes with glaucomatous paracentral visual-field defects  
*V C Lima, T S Prata, C G V De Moraes, J Kim, W Seiple, R B Rosen, J M Liebmann, R Ritch*
- 68 The sensitivity and specificity of Heidelberg Retina Tomograph parameters to glaucomatous progression in disc photographs  
*V Saarela, A Falck, P J Airaksinen, A Tuulonen*
- 74 Efficacy and tolerability of bimatoprost versus travoprost in patients previously on latanoprost: a 3-month, randomised, masked-evaluator, multicentre study  
*J A Kammer, B Katzman, S L Ackerman, D A Hollander*
- 80 Using diurnal intraocular pressure fluctuation to assess the efficacy of fixed-combination latanoprost/timolol versus latanoprost or timolol monotherapy  
*R Varma, L-J Hwang, J W Grunden, G W Bean*

[MORE CONTENTS ►](#)



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



Articles carrying the Unlocked Logo are freely available online under the BMJ Journals unlocked scheme. See <http://bjournal.bmj.com/info/unlocked.dtl>



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)



- 85** The effect of socio-economic deprivation on severity of glaucoma at presentation  
*W S Ng, P K Agarwal, S Sidiki, L McKay, J Townsend, A Azuara-Blanco*
- 88** Visual training of cerebral blindness patients gradually enlarges the visual field  
*D P Bergsma, G van der Wildt*
- 97** Scope of super-resolution in central vision  
*L Frisén*
- 101** Evaluation of the impact of intracorneal ring segments implantation on the quality of life of patients with keratoconus using the NEI-RQL (National Eye Institute Refractive Error Quality of life) instrument  
*J de Freitas Santos Paranhos, M P Ávila, A Paranhos Jr, P Schor*
- 106** Evaluation of the Lenstar LS 900 non-contact biometer  
*L P J Cruysberg, M Doors, F Verbakel, T T J M Berendschot, J De Brabander, R M M A Nuijts*
- 111** Endophthalmitis following open globe injury  
*Y Zhang, M N Zhang, C H Jiang, Y Yao, K Zhang*
- 115** Peripapillary retinal nerve fibre layer thickness profile in subjects with myopia measured using the Stratus optical coherence tomography  
*M J Kim, E J Lee, T-W Kim*
- 121** Ophthalmological findings in children and young adults with genetically verified mitochondrial disease  
*M A Grönlund, A K Seyedi Honarvar, S Andersson, A R Moslemi, A Oldfors, E Holme, M Tulinius, N Darin*
- 128** A prospective comparison of fine-needle aspiration cytopathology and histopathology in the diagnosis of orbital mass lesions  
*Z A Karcioğlu, J C Fleming, B G Haik*

---

### Education

- 131** Papilloedema and vision loss with elevated cerebrospinal fluid protein in a patient with systemic lupus erythematosus: diagnosis and management challenges  
*E K Deschler, N R Miller, P S Subramanian*

---

### PostScript

- 133** Letters
- 139** Mailbox



**Take a closer look at the latest research**

The British Journal of Ophthalmology keeps you right up to date with the clinical investigations and observations related to ophthalmology, so you'll want the guarantee of reading it every month.

Why not recommend the journal to your librarian or better still, obtain your own personal subscription? You will receive a paper copy every month as well as online access for just £169 a year (€228, \$330). Too much paper on your desk already? An online subscription is just £106 (€143, \$207).

Visit [group.bmj.com/group/subs-sales](http://group.bmj.com/group/subs-sales) - your subscription to this first class journal is just a few clicks away.

**bjournal.bmj.com**      **BMJ Journals**