

for cataract surgery and can help us to further improve our outcomes.

References

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Eye (2010) **24**, 389–390; doi:10.1038/eye.2009.121; published online 5 June 2009

Sir,
Responding letter

This article has highlighted and quantified another important risk factor for posterior capsular rupture (PCR) that was not analysed as a part of our series of 55 567 cases as ACD is not currently a part of the Cataract National Dataset. Adding this variable to the risk stratification model would undoubtedly improve its predictive value and we will therefore include it in the future rounds of multi-centre data collection. I also intend to incorporate the risk stratification model within the Medisoft electronic medical record so that clinicians can have access to an accurate estimate of the risk of PCR when planning surgery.

Conflict of interest

The author is the Medical Director of Medisoft Limited.

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Eye (2010) **24**, 390; doi:10.1038/eye.2009.124; published online 5 June 2009

Sir,
The Cataract National Dataset

We congratulate Narendran *et al*¹ on their study of the risk factors for posterior capsule rupture (PCR) and/or vitreous loss (VL), using data from the Medisoft electronic patient record (EPR). The multicentre analysis includes data from our own unit, and findings are broadly in line with our clinical experience. The authors state that ‘completeness of these (EPR) records is detailed and unusually high’, although there was no attempt to quantify the accuracy of clinical data. If these data are inaccurate, then the assessment of risk may also be inaccurate.

We attempted to quantify the accuracy of data entry for ‘ocular risk factors’ by sending an anonymous questionnaire to ophthalmologists in our unit. We asked whether, when recording a cataract operation on Medisoft, risk factors were recorded ‘always’, ‘sometimes’, ‘never’, or ‘only if complications occurred’. The response rate was 55% (11/20). One respondent did not use Medisoft; thus 10 responses were analysed.

Only one respondent (10%) stated that they ‘always’ entered all data on risk factors, although no respondent ‘never’ entered any of these data. One respondent admitted to only recording certain risk factors if a complication occurred. Recording rates were different for each risk factor (Table 1).

This small pilot study does indicate a significant degree of under-reporting of ocular conditions, by ophthalmologists who use Medisoft. The fact that some will record a risk factor ‘only if a complication occurs’ is a

Table 1 Recording rates for different risk factors

Risk factor	Glaucoma	Diabetic retinopathy	Brunescent/white cataract	Vitreous opacities/No fundal view	Pseudo-exfoliation/phacodonesis	Small pupil	Medium pupil
Proportion of respondents who ‘always’ record this risk factor, when present	6/10	7/10	3/10	5/10	3/10	1/10	1/10
Proportion of respondents who ‘never’ record this risk factor, when present	1/10	0/10	3/10	2/10	2/10	3/10	4/10
Proportion of respondents who record this risk factor, when present, ‘only if there is a complication’	0/10	0/10	0/10	0/10	0/10	1/10	1/10
Overall proportion of respondents that record risk factor ^a	77.5%	90.5%	49.5%	64.5%	58.5%	40.5%	31.5%

^aThis is the sum of ‘always’ and ‘sometimes’.

further source of bias. Each of the ocular risk factors seems to have a different degree of under-reporting and reporting bias. This will affect the estimates of relative and actual risk of PCR/VL for each of these ocular conditions.

Reference

- 1 Narendran N, Jaycock P, Johnston R, Taylor H, Adams M, Tole D *et al.* The Cataract National Dataset electronic multicentre audit of 55 567 operations: risk stratification for posterior capsule rupture and vitreous loss. *Eye* 2009; **23**(1): 31–37.

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Eye (2010) **24**, 390–391; doi:10.1038/eye.2009.123;
published online 5 June 2009

Sir, Responding letter

Response to the letter by Mr Depak Gupta,

I would like to thank Mr Gupta, Dr Hadinapola and Mr Eke for their interest in our paper and the contribution of their unit in providing data for the study.¹ They have highlighted in a small survey of some of the doctors in their own department that not all carefully record all risk factors. They have not measured the accuracy of the responses, and therefore no firm conclusions can be drawn as to the magnitude of bias caused. Many of the risk factors identified in our study (1) are independent of the diligence of data recording by the surgeon (patient age, male gender, axial length >26 mm, use of alpha blockers) as they are recorded by nurses during pre-assessment and biometry or are highly likely to be recorded accurately (grade of surgeon). This leaves the following factors potentially susceptible to bias in their, and probably other units: (presence of glaucoma, diabetic retinopathy, brunescant/white cataract, no fundal view/vitreous opacities, pseudoexfoliation and pupil size).

Accuracy of data is an issue in any study. As all data were anonymised before extraction it was not possible for us to evaluate the accuracy of the data. The Medisoft electronic patient record (EPR) system attempts to balance speed of data entry with completeness of data capture by using default settings for some fields, but by forcing data entry in important fields such as co-pathology and complications. Using EPR completeness of data capture can be guaranteed, but not accuracy. I am constantly looking for ways to design out potential sources of inaccurate data entry; for example, we may implement automatic selection of co-pathology options based on previously entered diagnoses, so that over time the accuracy of data entry in the EPR may improve. As EPR systems begin to

entirely replace paper records, rather than just being used to audit specific care pathways, there will be increasing opportunities for cross-checking the accuracy of data entry.

Despite the potential for bias introduced by inaccurate data entry for some of the risk factors, it is gratifying that the authors recognise that the findings are 'broadly in line with our clinical experience'.

Conflict of interest

The author is the Medical Director of Medisoft Limited.

Reference

- 1 Narendran N, Jaycock P, Johnston RL, Taylor H, Adams M, Tole DM *et al.* The Cataract National Dataset electronic multicentre audit of 55 567 operations: risk stratification for posterior capsule rupture and vitreous loss. *Eye* 2009; **23**: 31–37.

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Eye (2010) **24**, 391; doi:10.1038/eye.2009.125;
published online 5 June 2009

Sir, Case of novel *PITX2* gene mutation associated with Peters' anomaly and persistent hyperplastic primary vitreous

The association of Peters' anomaly with persistent hyperplastic primary vitreous (PHPV) has been reported clinically and histopathologically,¹ but a genetic cause for the clinically uncommon complexation of these two malformations has not been reported.

A male child (3090 g) was born by normal gestation and delivery, and had no systemic abnormalities. His parents noted leukocoria in the right eye at the age of 7 days. Slit-lamp examination and ultrasound biomicroscopy showed central corneal opacity with anterior iris synechia, a shallow anterior chamber, lens subluxation, and elongated ciliary processes in the right eye (Figure 1a–c). Computed tomography showed right microphthalmos.

Pars plana lensectomy and anterior vitrectomy were performed in the right eye at the age of 7 months to manage the pupillary block. Endoscopic findings revealed a persistent hyaloid artery towards the fibrovascular tissue behind the lens (Figure 1d). On the basis of these findings, we diagnosed the child with Peters' anomaly-complicated PHPV.

After obtaining informed consent, molecular genetic analysis of the *PITX2* gene by direct sequencing of all the coding regions revealed a novel 649C>A mutation in the proband (Figure 2). This substitution