Eye (2003) 17, 798–799

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CORRESPONDENCE

Sir,

Optic disc morphology on presentation of chronic glaucoma

We read with interest the article by Rahman *et al*.[1] It is pleasing that other researchers have been interested to further investigate the concept that optic disc appearance in glaucomatous disease may provide certain clues as to the aetiology and potential responsiveness to therapy. We believe that a major difference between the work of the Oxford group[1] and our group[2–6] relates to case selection. In the case of the Oxford study, 221 eyes of 250 patients (88%) with glaucoma were included in one of six groups, and only 29 eyes were excluded because they could not be securely classified. In contrast, in our studies less than 10% of examined optic discs could be classified using extremely strict inclusion criteria. In addition, all of our 'generalised enlargements' of the cup had to have photographic or case note evidence that the disc had in fact changed or was glaucomatous. As with the Oxford patients, the majority of our patients also had relatively early glaucoma (average mean deviation values of <10 dB). We think it unlikely that the population of patients presenting to the two departments differed to the degree implied by the large difference in percentage of optic discs considered to be classifiable ($\sim$90 *vs* $\sim$10%). Case selection, therefore, might explain the negative findings presented by Rahman *et al*.[1] In our work, extremely strict classifying criteria were utilised so as to provide groups of patients with 'pure' optic disc appearances and, while some of our discs were too damaged for classification, in the majority they were not classified because they had a mixed appearance with overlapping of categories. Although these stringent criteria provided interesting findings relating to potential aetiological mechanisms, it was at the expense of being less clinically relevant to the practising ophthalmologist.

The Oxford group should be commended for attempting to classify more patients, which had the potential to provide more clinically relevant information. Unfortunately, this may have reduced the power of the study to identify possible differences relating to pathogenesis. It is hoped that the findings published by Rahman and coworkers does not diminish their interest, or that of others, in pursuing the concept that optic disc appearance may provide clues to improve our knowledge about the group of disorders collectively known as primary open angle glaucoma.

References

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Eye (2003) **17,** 798. doi:10.1038/sj.eye.6700478

Sir,

Reply

We value the comments made by Broadway *et al* in response to our article. We recognise that by choosing highly selected glaucoma patients with photographically pure features of differing optic disc morphology, potential clues to the pathogenesis of the glaucoma may be found.[1] However, the fact remains that our data would suggest that in clinical practice the morphological appearance of the optic disc is not particularly helpful in determining the underlying mechanisms responsible for the glaucomatous atrophy.[2]

Clearly, further study is required. It will be interesting to see whether specific gene defects will be

linked to the differing optic disc morphology in chronic glaucoma.

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Eye (2003) **17,** 798–799. doi:10.1038/sj.eye.6700479