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# Sir,

# Efficacy of amblyopia therapy initiated after 9 years of age

I have read with interest the article of KH Park *et al*<sup>1</sup>. It raises several questions:

The title gives the impression that the article is about the usual amblyopia observed in children with convergent strabismus. However, as we read on, we see that instead it deals with anisometropias and a few divergent strabismus, two of which are intermittent.

The discussion seems to imply that all amblyopias are alike, as the authors talk of a 'critical period', a term usually referring to the period in which treatment of amblyopia with convergent strabismus may be successful. In amblyopia with convergent strabismus, early detection and treatment are essential. Our group, PHORD (Forum d'Othopsie Renouvelee et Digitale) is at present experimenting early detection with digital cameras.

While clinical observations are always interesting, I fear that, by suggesting such a high rate of success in late treatment, this article could induce nonspecialists to continue occlusion on children with convergent strabismus longer than the period in which positive results may be obtained, with the risk of creating irreversible psychological damages.

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### Sir, Reply to A Franceschetti

We thank Dr Franceschetti for his interest in our article. As our title, 'Efficacy of amblyopia therapy initiated after 9 years of age' implies, none of the children in our study had undergone a prior ocular examination. Therefore, none had ever worn spectacles, received amblyopia therapy, or had strabismus surgery. It is quite rare that an amblyopia associated with esotropia had never undergone a previous ocular examination until the age of 9 years. Therefore, it is difficult to understand why our title gave the impression that the article was about the usual amblyopia observed in children with convergent strabismus.

As a result of the inclusion criteria according to the age when the amblyopia was detected, most of our patients were related with anisometropia. Therefore, we did not



discuss the different types of amblyopia in the discussion.

The term, 'critical period' became widely used after Wiesel and Hubel<sup>1</sup> presented their experiments on monocular deprivation and discussed the critical period for changes in the ocular dominance of the cells in the primary visual cortex of a cat, as a result of a monocular deprivation of eye opening for several months. Nowadays, different critical periods for different visual functions are used during the development of the visual

system.<sup>2</sup> As he mentioned, 'critical period' is sometimes used for amblyopia with a convergent strabismus, but it is also used for anisometropic deprivation<sup>3,4</sup> as well as a congenital cataract,<sup>5</sup> etc.

I cannot completely agree with his opinion in that 'this article could induce nonspecialists to continue an occlusion on children with convergent strabismus longer than the period for which positive results might be obtained, with the risk of creating irreversible psychological damage.' Of course, amblyopes related with esotropia showed a worse prognosis to occlusion therapy than the amblyopes related to anisometropia. However, some compliant amblyopes of 11-15 years of age due to a strabismus showed an improvement with a full-time occlusion.<sup>6</sup> Occlusion treatment is not simple to implement and is often associated with some degree of distress. Despite this, the negative psychosocial effect might be less than expected.<sup>7,8</sup> Besides, amblyopia by itself has a significant effect on the patients' psychosocial functioning.9 We cannot ignore the psychosocial difficulties related to an amblyopia affecting the individuals' self-image, work, school, and relationships.9

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#### Sir,

# Calculated tumour volume as a prognostic parameter for survival in choroidal melanomas

Richtig and associates raised the question, whether calculated tumour volume would be a better prognostic indicator of survival of patients with choroidal melanoma than the largest basal tumour diameter (LBD) and height.<sup>1</sup> They answered in the positive and also suggested that tumour volume be calculated in daily routine.

We tested their hypothesis with independent, consecutive, clinically unselected, and population-based data of 289 patients with choroidal and ciliary body melanoma with long-term follow-up.<sup>2</sup> A Cox regression multivariate model that combined LBD (mean 13 mm, range 3–25) and tumour height (mean 7.8 mm, range 1–20), fitted to survival data significantly better (P = 0.0031, difference between models; Table 1) than a model based on tumour volume as calculated by Richtig *et al.*<sup>1</sup> Of models that included only one size parameter (LBD, height, and volume), the one based on LBD fitted to the survival data best and was superior to the one based on volume (P = 0.020, Table 1).

The model that combined LBD and height was somewhat more strongly associated with survival than the model based on LBD alone (P = 0.045).

The range of tumour dimensions in Richtig's study was more limited (mean LBD 10.4 mm, range 4.1–18.9, and mean height 5.7 mm, range 1.7–14.9). We consequently delimited our data to correspond to their LBD and tumour height limits (mean 12.5 mm, range 6–