

SUMMARY OF R.C.H. and N.V.R.I. Control Trial of Cam Simulator

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In 1978 Banks *et al.* reported that the vision in amblyopia can be significantly improved by brief weekly periods of occlusion of the good eye while the child performs concentrated visuomotor tasks against a background of rotating gratings. At the Royal Children's Hospital, Flemington Rd., Parkville, Melbourne and the National Vision Research Institute of Australia in Melbourne a controlled trial was conducted to investigate the role played by the gratings in this procedure; one group (n = 33) of amblyopic children viewed a series of rotating gratings during treatment while the other group (n = 27) performed exactly the same visuomotor tasks against a homogeneous grey background.

Particular attention was placed on the choice of tests of visual acuity in order to highlight the crowding phenomenon that is a characteristic

feature of the visual loss in amblyopia. The chart selected for this purpose was the Bailey-Lovie chart in which the number of letters on each line was held constant and the letter sizes and spacing were graded in equal logarithmic steps. While some improvement in vision occurred in almost all cases, no significant difference was found between the group that viewed the rotating gratings and the control group that viewed the homogeneous grey disc. Furthermore, there was no detectable difference between the two groups in either the rate of improvement of vision or in the tendency of the vision to be maintained or even improved following cessation of treatment. Since there was no indication that the patients treated with gratings improved more than those in the control group, we conclude that the visual recovery was promoted by some other aspect(s) of the procedure.