UNJUST CRITICISM OF THE LASER

To the Editorial Committee of the *British Journal of Ophthalmology*

SIRS,—Criticism of the laser has arisen in several quarters in comparison with the light-coagulator. I should like to show that the laser can substantiate its claims and at one-third the cost of the light-coagulator.

The recent paper of Mellerio (1967) has produced public reaction against the laser. He drew his conclusions from the rabbit retina and was quoted, partly inaccurately, as saying that the laser "produced haemorrhage, cut the optic nerve, and should not be used". I have seen neither catastrophe in over one hundred applications at full strength (Nelas) in human cases. This may of course be because the Nelas is of only very weak power. Further, when there is so much difference between the better developed Negroid retina and the retinae of the white and yellow races that detachments are rare in Negroes, deductions to man from rabbit retinae must be carefully drawn.

Criticism originally arose in clinics equipped with light-coagulators where it was shown that the laser could not weld wet holes in spontaneously settled and incompletely closed post-operative holes, nor cure diabetic retinopathy, tumours, retinoschisis, or angiomas.

In the small impecunious hospital, a detachment becomes a major problem because of the time involved and the disorganization of the normal operating list, and the success rate may be only 50 per cent. Since there appear to be only two detachment centres in the United Kingdom (Moorfields and Manchester) and only a dozen light-coagulators, the laser is valuable in small clinics. In our small two-session detachment clinic (Kelly, 1965), we see annually about forty operation cases from a population of over 700,000. Full Schepens's techniques insure that the laser treatment is rarely needed for wet holes—not that all are cured, simply that the failures are beyond redemption, even beyond the light-coagulator!

Laser treatment is needed for holes following vitreous haemorrhage, small traumatic oral tears, small cysts beginning to extend, and prophylaxis in the fellow eye in about fifteen of the forty surgical cases ("Detachment is a bilateral disease" (Fison)), twenty high myopes, ten aphakics, and rarities like toxoplasmosis. Almost all of these cases can be treated by the laser as well as the light-coagulator, although admittedly the laser takes longer. These bring the total to about sixty. Against this we have perhaps one retinoschisis, about fifteen diabetic retinopathies, and occasional vitreous haemorrhage holes that the laser cannot heal (though the light-coagulator can)—about twenty cases in all.

The laser is therefore of practical value in 75 per cent. of the cases seen, and these include the prevention of thirty detachment operations. Michaelson's immense survey (Gonin Club, 1962) showed that 40 per cent. of detachments in Israel could be prevented from coming to surgery. Indeed we are only just beginning to realize the enormous fundamental importance of prophylaxis in detachment therapy, since not only are the ultimate cures greater in number, but up to 40 per cent. of patients never have to undergo the trauma, both mental and physical, of the commonest and most hazardous of the operations we perform.

This work can be done at one-third the cost of using the light-coagulator, patients are saved the expense and inconvenience of attending a large centre, and the work at the larger centre is lessened. Therefore we have no cause to disparage the laser but should be thankful for a very helpful tool which lives up to its claims even if it cannot meet our first exaggerated expectations.

Yours faithfully,

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May 28, 1967.

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