Experimental branch retinal vein occlusion

Sir, I was interested to read the 3 publications\(^1\)\(-\)\(^3\) in the June 1979 issue of the British Journal of Ophthalmology on experimental branch retinal vein occlusion (BRVO). We have had similar results in our identical experimental studies on BRVO, conducted over the past 6 years, with a follow-up of eyes in rhesus monkeys up to 2 years (not published as yet). While I support, in general, the findings of the authors on BRVO, I take very strong issue with some of the statements regarding our work on central retinal vein occlusion (CRVO) by Hamilton et al.\(^1\) and particularly in the anonymous editorial\(^4\) preceding that paper.

The editorial\(^4\) appears to make the mistake of equating CRVO with BRVO. The articles describe studies of BRVO and not CRVO, and the author of the editorial has drawn conclusions from those studies on the BRVO only. CRVO and BRVO are 2 very distinct conditions. The anatomy of the CRV, the various physiological and pathological aspects of its blood flow, and the pathogenetic factors in its occlusion are very different from those of the BRV. Moreover, studies reported do not even reproduce all aspects of the clinical syndrome of BRVO in the animals. To apply the findings to CRVO (without doing any exhaustive studies on CRVO) is in my view ridiculous.

In the field of research, the emergence of new facts and evidence makes us modify our views as we go along, provided we keep an open scientific mind. My studies, conducted in the early 1960s and published in 1965,\(^5\) were conducted on a small series and, more importantly, before the advent of fluorescein angiography and it was impossible to determine the extent and type of occlusion of retinal vessels under those experimental conditions. Our recent studies\(^6\) clearly revealed the limitations in those earlier studies, and the consequent erroneous impressions. Recently we pointed out\(^6\) the discrepancy in the 1965 study in the light of our recent findings, but the author of the editorial has taken no notice of that fact. But the editorial writer even misrepresents our current views on the subject.

According to the author of the editorial, ‘the difference in the clinical appearances [between the CRVO and BRVO] are due to differences in the site of the obstruction’. Site of occlusion undoubtedly plays an important role in the severity of the clinical picture of CRVO, and we strongly emphasised this fact in our paper,\(^6\) but that does not explain everything about the pathogenesis of CRVO. For example, one-third of the patients with CRVO have ocular hypertension or chronic simple glaucoma, whereas in BRVO the incidence is no higher than in the general population.

The author admits the presence of ‘ischaemic capillaropathy’. This can be reproduced by more mechanisms than one. No doubt isolated venous occlusion by itself

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**Book reviews / Correspondence**

a place in ophthalmology which can be described as both ethical and valuable.

With this in mind it is desirable that comprehensive contributions to the relevant literature should be seen to build on this base foundation and not to turn the clock either back or too far forwards with ill-advised haste. In this respect, this book falls short of what is required. It represents a very personal account of Dr Scharch's views, with much detail about his surgical techniques and the value of his design of implant. His views are unsupported by statistical evidence of his own, and no mention is made of the need to make further study and assessment of results and complications in a proper scientific manner.

Because of the number of astonishing and possibly dangerous assertions such as that \(\alpha\)-chymotrypsin causes glaucoma and delayed wound rupture, or that endothelial dystrophy does not constitute a contraindication to implant surgery, this book should be regarded as unsuitable for postgraduate study, unless read with well-developed critical faculties. The text is not assisted by medical illustrations of poor quality.

This book reflects an attitude in favour of implantation for almost every type of patient with cataract and belittles the disadvantages, attributing most complications to faulty surgical technique rather than to unsatisfactory clinical judgment. Such teaching could easily lead the inexperienced surgeon and his patients into serious trouble.

A. D. MCG. STEELE


This useful historical review will be of interest to both the expert and the layman. It is eclectic in the sense that it starts with Newton, even though the study of colour vision received a considerable impetus a century and a half earlier at the hands of Leonardo da Vinci. The author spends quite some time in grappling with psychological concepts—a thankless task, in your reviewer's opinion. His description of fundamental physiological studies on primates is brief to the point of being curt, but perhaps this restores a recent imbalance in the literature on colour. It is interesting to witness the resuscitation of long-ideal ghosts, and to see recent ones confirmed. For example, the so-called principle of univariance (p. 91), linked with Rushton's name, was stated by Einstein at the beginning of this century and really stems from photochemical principles datable to the middle of the last century. But if we credit someone with a discovery often enough he will make it one day.

R. A. WEALE