on the retinal vessels and to observe the effect. Perhaps it is the frequent reminder, during routine ophthalmoscopy, of the ease of observation of the retinal vessels which continues to urge ophthalmologists to try to improve the technique and the interpretation of the results of ophthalmodynamometry and related procedures. In relation to the effort, however, the yield of information about the oculi circulation seems to be low, although it may be possible to make certain deductions about the state of the carotid and cerebral circulations. The duration of the effort to develop ophthalmodynamometry can be judged from the brief historical review in this book, which shows that work on the human eye can be traced back to the first decade of this century.

Early chapters in this book deal with the relevant anatomy (including the numerous variations in arterial origins and branchings), physiology, and hydrodynamics of ophthalmodynamometry, and there are some useful diagrams to help the reader through this part. There follows a section on the different techniques which have been described. The instruments themselves vary according to whether they raise the intraocular pressure by pressing on the eyeball or by exerting suction on it. Also, in some techniques, force is exerting on only a small part of the eyeball (for example, with Baillart's ophthalmodynamometer), while in others (for example, Hager's so-called ophthalmodynamography) the force is transmitted to all the orbital contents. It is rightly stressed that one has to consider what is being measured. With the usual methods of ophthalmodynamometry it is the pressure in the ophthalmic artery, but with Hager's procedure it is probably the pressure in the internal carotid. A technique of dynamography of the temporal artery is also described.

The author makes clear that there are many sources of error and a number of problems in interpreting the results, and he discusses these matters fully. A great deal of factual material is presented. For example, there are 15 pages of graphs giving the relationships between pressures in the ophthalmic artery as determined by ophthalmodynamometry and brachial arterial pressures, and the corresponding relationships for pressures measured by ophthalmodynamography and in the temporal arteries. This mass of information is further complicated by the need to give systolic, mean, and diastolic pressures, and by the change in relationships according to the posture of the patient.

Dynamography differs from dynamometry in that it gives a recording of the form of the pulse wave and is applicable to the orbital contents or the temporal arteries. The recording of the pulse wave gives the opportunity for further analysis of haemodynamic events in terms of pulse volume, pulse duration, and the speed of rise and fall of the pulse wave. All these matters receive attention. Recent developments offering more hope for future advances are also mentioned; these include the use of ultrasound and the Doppler effect, and the combination of dynamometry with recordings of the visual evoked response.

On the whole the contents of this book amount to a careful and painstaking presentation of the known facts of ophthalmodynamometry and related techniques, but one is left with a feeling of disappointment that it is not possible to demonstrate a greater contribution to practical clinical problems.

J. GLOSTER


The field of electrophysiology as applied to the eye has seen significant advances in recent years, and workers in this field are now familiar with the beautiful recording technique of these particular authors at the Geneva eye clinic. This book, which is translated from the French, is a clinical and experimental study of the electroretinogram, the electro-oculogram, and the visually evoked response based on work done over the past 10 years. The notable feature of the work is the development of the technique of averaging to produce these electrical responses. In particular, the form of the electroretinogram is portrayed very accurately, and the changes shown with disease will be of interest to the less specialised clinician.

N. R. GALLOWAY


This book represents one volume in a series on diagnostic radiology. It is a tribute to the author, who has compiled a unique experience in this specialised field as consultant radiologist to Moorfields Eye Hospital and the Royal National Throat, Nose, and Ear Hospitals in London. The material is largely from his personal files and includes a lifetime of experience in the diagnosis of orbital lesions.

The early chapters describe the methods of investigating the orbit by plain x-rays, tomography, contrast techniques, computerised scanning, and various forms of ultrasound. There follow chapters on vascular anomalies in the orbit, unilateral proptosis, tumours, and pseudotumours. A useful chapter is included on the paranasal sinus, and of particular interest to clinical ophthalmologists are the chapters on dacryocystography and localisation of intraocular foreign bodies.

The book is well produced, with illustrations of exceptional quality and a useful bibliography. It will prove valuable to ophthalmologists as well as neuroradiologists, for whom it was largely intended. It is unfortunate that the date of publication precluded any major consideration of computerised scanning.

M. D. SANDERS


This report of the symposium held to inaugurate the new eye institute of the University of Nijmegen has no particular theme except that it is concerned with new developments in ophthalmology. It must have been an
Ocular Electrophysiology: A Clinical and Experimental Study of ERG, EOG, and VER

N. R. Galloway

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