Electroretinogram in Retinal Hypertension and Arteriosclerosis

H.E.		Henkes
------	--	--------

Rotterdam

(To be published elsewhere.)

Discussion.

Colenbrander: Was the adaptation process slower than normal?

Flieringa asked whether the increased b-potential in choroidal sclerosis is influenced by increase of the stimulus from 20 lux to 80 lux.

Leffertstra: From the fact that in hypertension associated with arteriosclerosis the percentage of subnormal values in the electroretinogram shows a marked decrease after 30 minutes' rest, you infer that patients with hypertension still have a possibility of restoration, a compensation mechanism. This compensation mechanism is assumed to be absent in sclerotic patients without hypertension, who show normalization after 30 minutes' rest in only a small percentage. How is this to be reconciled with the well-known fact that after 30 minutes' rest the blood pressure usually decreases, which would result in a less marked activity of the compensating factors?

Dekking: Whether improvement of the electroretinogram after 30 minutes' rest is due to improved oxygenation, might be proved by increasing the blood oxygen tension before rest has exerted any influence.

Winkelman: In various affections of the retinal vessels we had the patients inhale carbogene and studied the influence of this on the electroretinogram. Our experience is not yet wide enough to express an opinion on the results. Any influence will be brought about by vascular dilatation rather than by increase of the oxygen content. We have never observed any harmful sequela in the patient. Neurologists use it in cerebral thrombosis.

Henkes replied

to Colenbrander: Unfortunately it is not possible to draw an adaptation curve simultaneously with registration of the electroretinogram. However, the same initial value is used by bleaching in the same light source for 5 minutes, before the determination is carried out;

to Flieringa: Increase of the intensity of illumination does not give rise to increase of the b-potential. In cases without opacities of the optical media, the usual 20-lux dose produces a maximum b-potential.