

## BOOK REVIEW

**Is Diabetes a Vascular Disease?** (Der Diabetes mellitus ein Gefäß-Problem?) By R. THIEL. Suppl. 25 to *Klin. Mbl. Augenheilk.*, 1956. Pp. 58, 35 figs. Enke, Stuttgart.

Though Thiel does not answer his question directly, he undoubtedly considers that vascular changes and the resulting asphyxia of the tissue are the essential features of the pathology of diabetes. The clinical picture of diabetic retinopathy is illustrated by excellent colour plates. In young patients the disease leads to massive neof ormation of capillaries which may form a *rete mirabile*. Thiel suggests the name "rubeosis retinae diabetica". Histological sections show the damage done to the capillary walls and the development of microaneurysms. The capillaries are not the only vessels to be affected. While deposits of lipoids and glyco-proteins in the capillary walls may be found in other conditions (*e.g.* arteriosclerosis and glaucoma), the manner in which these substances affect the vessels and the relative percentage of their occurrence are typical for diabetes. Thiel stresses the part which is played by the muco-polysaccharides. The reviewer misses reproductions of analogous sections stained by Sudan red and PAS to show the participation of lipoids and glyco-proteins in these degenerative changes.

Becker's experiments on the dependence of diabetic changes in the retina and the coordinated intercapillary glomerulo-sclerosis on an increased ACTH activity are briefly mentioned.

The deposits diminish the permeability of the vascular membrane, a result which is enhanced by ionic disturbance and latent acidosis, which in turn promote the precipitation of glyco-proteins. Cortisone and ACTH act adversely by inducing sodium and water retention while potassium is lost. Insulin can also cause vascular damage by changing the ionic environment and especially by developing antigen properties, leading to allergic injury of the capillaries.

After reading Thiel's contribution, an ophthalmologist may feel overawed by the multiplicity and intricacy of the factors involved in the diabetic problem. It appears that a thorough knowledge of physical and organic chemistry, and of the metabolism of the diabetic tissue is required for an understanding of the pathology of diabetes.

## NOTES

### CORNEO-PLASTIC UNIT AND REGIONAL EYE BANK *Queen Victoria Hospital, East Grinstead, Surrey*

During 1957 a series of demonstration discussions will be held to illustrate the relationship of ophthalmology and plastic surgery. These meetings will commence at 2 p.m. on a Saturday and will include a short lecture, illustrative operations, examination of patients, films, and discussion.

The subjects for study will be: Keratoplasty; Ptosis; Surgery of lacrimation; Reconstruction of the conjunctival fornices, socket, and orbit; and Treatment of positional and parietic diplopia.

The first meeting, to be held on January 19, 1957, will deal with keratoplasty. These demonstrations are without fee, and numbers will be limited to twelve surgeons per session. Applications should be made to the Secretary, Corneo-Plastic Unit and Regional Eye Bank, Queen Victoria Hospital, East Grinstead (Tel: East Grinstead 987).