

depends on the circumstances of place and time." If fresh retinal haemorrhages appear in spite of a lowering of the blood pressure in essential hyperpiesis, the danger is great; if they appear in diabetes and if in spite of insulin the blood pressure is rising and the specific gravity of the urine is decreasing then the danger is great.

But, we can occasionally hear it said "A retinal haemorrhage is so small! And often nothing happens to the patient for years!" If we compare the amount of blood running through the eye-ball with that running through the lung, the smallest retinal haemorrhage will amount approximately to half a teaspoonful of blood in the sputum. And surely such a haemoptysis will move a physician to undertake a thorough investigation of the pulmonary system, in spite of the fact that often nothing happens to his patient for years after he has coughed up blood. The retinal haemorrhage is always a serious and temporary warning, although it does not always mean immediate danger. And I earnestly wish that its significance should be grasped and should lead to the same thorough investigation of the reno-cardio-vascular system, as a haemoptysis usually does for the lungs.

Summary.—As far as my investigations have shown, in spite of the lack of direct anatomical evidence, the vessels in the normal eye run on the disc and on the retina through channels of perivascularis. The disc is covered by a transparent and strong membrane of mesodermic origin. The vessels on the disc are under pressure in the sagittal and horizontal diameters, which is greater than that on the retina. When they become sclerotic they first lose their translucency, then change their colour, and "dot" their light reflex, then the sclerotic perivascularis appears, first as white lines at the crossing points, and later on it takes a leading part in arterio-venous compression. This thickened perivascularis plays an important part in every pathological vascular process in the sclerotic eye, but its action is chiefly a local one affecting separate parts of the vessel, especially at crossing points. Essential hyperpiesis greatly increases and aggravates all the sclerotic signs of the retinal vessels. It is quite probable that there is a special predilection for the retinal vessels and that these are affected more early and more severely than other parts of the vascular tree, except the cerebral vessels and, perhaps, those of the kidneys.

(To be continued.)

CORRIGENDUM

In Dr. Pines's article in our last number, on p. 97, in the penultimate line, for "sum" read sun. On p. 112, line 30, for "Figs. 1, 1a, 1b," read Figs. 1, 1a, 1b, 1c. On p. 115, line 14, for "endothelial cells (C)," read endothelial cells (B).