

granted that our own eye is normal). We can then observe whether there is a corresponding or greater diminution in the visual acuity of the patient. In order to test the light difference we use what is known as Bjerrum's or De Wecker's photometric test types, which I here show you, and which consist of Snellens' types, printed white on gray. The contrast between the letter and its background, as you will see, gradually diminish as we descend the board. There is a fraction marked at the end of each line, which will give you an approximate idea of the value of the light difference in any case. The result, of course, cannot be mathematically accurate, but can be approximately enough correct for practical purposes. The main difficulty in these tests is the variation of perceptive power of the retina, occasioned by the state of so-called adaptation. For instance, an eye which has been in the dark for some time is extremely more sensitive to light than one that has been exposed to strong daylight. We can, however, compare our own light perception with that of the patients, presupposing our own eyes are in an approximately normal condition. The diminution of the light perception is mainly caused by a pathological change in the outer or pigmentary layer of the retina, which layer goes by the name of photochemical apparatus of the eye, whilst a diminished value of the light difference perception is most marked in lesions affecting the optic nerve. In retinal and choroidal lesions the light minimum is greatly reduced, as a rule, and the light difference is but very slightly affected, hence a diminution of the light perception, pointing, as it does, to a lesion of the retina or subjacent choroid (which latter, as you know, is the nutritive supply for the outer layers of the retina), directs the attention to the possible cause of such a lesion. Now, the main causes of the retinal conditions are certain toxic constitutional states, and your attention being drawn to this fact, you would institute a thorough general examination of the patient. The nephritic type of retinitis is the one most frequently met with, and as you know, the prognosis is extremely grave, the patient's life rarely being prolonged eighteen months after the eye lesions are demonstrated.

Next to this we have a diabetic type of retinitis, in which we have the same failure of the light perception, but in which the prognosis is not nearly so grave; further, there are the syphilitic types, some of them associated with circumscribed exudations in the choroid and retina, which are characterized also by the distortion of objects looked at, due to the exudate forc-