

mately the other one too, unless there be timely interference. There is generally a "premonitory" stage of several months duration, a prominent subjective symptom being the observance of coloured rings as of rainbow hues when looking at an artificial light, associated with transient foginess.

The etiology of glaucoma is engaging much attention, and the following are the main factors and features of this morbid process: Increased tension is, with hardly an exception, considered the essential fact of the disease, though in the G. simplex optic nerve atrophy plays an important rôle and the treatment directed to tension is sometimes only of partial benefit or useless; undue rigidity of the sclera; serous choroiditis and intraocular hypersecretion of possible neurotic origin; defective excretion or escape of fluids by virtue of narrowing of the space between the lens margin and the ciliary processes by swelling of one or other, and also contact or union of the peripheral part of the iris and sclero-corneal junction, impeding or closing the avenues to the important venous canal there; atrophy of the ciliary muscle, etc. A pathological condition of some interest is the recession of the face of the optic nerve towards the lamina cribrosa as the result of pressure, producing what is termed pressure-excavation or cupping, a characteristic feature of confirmed glaucoma readily recognizable with the ophthalmoscope. The field of vision is also affected after a manner sufficiently common to be considered characteristic, inability to see objects on the *nasal* side being first noticed, and then above and below, and so on until only a central sensitive point or islet remains.*

Iridectomy was for years the only radical treatment of glaucoma,—“curing” as if by magic the inflammatory form and arresting most of the simple chronic cases. Its record is a brilliant one: it has saved myriads of eyes and averted an incalculable amount of suffering. To be most effective it should be done promptly in the inflammatory variety, and before the

field of vision is very much curtailed in the non-inflammatory.

Sclerotomy, in which a carefully-executed incision by means of a narrow knife, is made in the sclero-corneal junction without removal of any iris, is now being practised in lieu of iridectomy proper for the relief of tension, notably in the later stages of non-inflammatory glaucoma; on the supposition that the escape of intra-ocular fluids by means of filtration through the cicatrix contiguous to the important venous and lymph channels of that region, is the real remedial process, and excision of iris largely superfluous. The place to be filled by it is not fully determined. *Eserin* is of great value in inflammatory glaucoma, repeated instillations (of eserine sulph. grs. iv.—vii. ad. ʒj. aq.) at short intervals causing generally marked reduction of tension and abatement of symptoms. In some instances acute attacks and also milder sub-acute seizures are tided over by its use alone, and in others the eye is saved from irretrievable damage until an iridectomy can be done. It is sometimes of service in chronic glaucoma, though occasionally injurious. Its value in arresting staphyloma and averting secondary glaucoma, &c., in extensive ulceration of cornea has been already noticed.

Simple chronic glaucoma is sometimes confounded with cataract because the lens seems hazy and the sight is somewhat impaired, the eye appearing healthy, and also because when it is fully confirmed the lens is often cataractous. But, as already noted, in idiopathic cataract the eye is of normal tension, the pupil active, and the visual field unaffected. Cataract with dilated pupil generally means glaucoma, and if the eye be not hard it is likely quite blind from some other disease. In very young subjects we sometimes find the pupil dilated and the eye more or less hard, and a creamy reflex from the depths of the eye, but the primal mischief is glioma of the retina, which is itself sometimes mistaken for cataract though the lens is generally clear. Inflammatory glaucoma is distinguished from iritis by the hardness of the globe, suddenness of onset, and of loss of sight, and dilatation of the pupil. In iritis, excepting the rare serous form, the eye is of normal tension and the pupil contracted.

* In testing, one eye should be closed and the other directed straight forward. One's hand or a white watch dial makes a good test object. If cataract be present an artificial light is needed.