

# CANADA LANCET.

WILLIAM EDWARD BOWMAN, M.D., EDITOR.

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## GLAUCOMA AND IRIDECTOMY.

CLEANINGS FROM LATE AND HIGH AUTHORITIES.

Glaucoma is produced by extensive tension of the eye-ball from venous congestion; by superabundance of fluid within it; by degeneration of the coats of the arteries and veins of the choroid and retina; by increased consistence and discoloration of the vitreous humour and lens; and by undue contraction of the ciliary muscle. (The cause of glaucoma probably lies more deeply, and has yet to be discovered.—Ed.)

An alarming attack may show itself suddenly, or appear only after a longer or shorter period of premonitory and milder ones.

The most important and marked symptoms of glaucoma are increased hardness of the eye-ball (stony hardness), severe pain in the orbit and ball, dilatation of the pupil, and blindness. All these may be relieved and the eye saved by the timely operation of iridectomy, which proves most beneficial when performed early, and in acute cases. Bowman gives some excellent remarks on digital examinations of the eye ball in Br. 14.

Eyes affected by other diseases may become glaucomatous and be destroyed, when unrelieved, by the same internal pressure as uncomplicated glaucoma.

Glaucoma is the only disease of the eye in which diadonna proves painful, injurious, and even destructive. (I can also add my testimony to the usefulness of this assertion, for I not long since saw the eye of a patient affected with gonorrhoeal ophthalmia, which had become glaucomatous, in three hours, by the local use of atropine, which contrary to usual occasioned the severest pain. Ed.) Such effects therefore from the extract of belladonna, or from atropine, should render the surgeon cautious in its employment in suspected cases, and furnish him a valuable means of diagnosis in those in which the symptoms become aggravated. (The pain produced by it is much more severe and quite different from that of adherent iris.—Ed.) It acts by decreasing the congestion of the veins.—*Medical Times*, July 30, 1864.

A good description of the symptoms of glaucoma, and the correctness of which is universally acknowledged, is that of Surgeon Hulke, of the Royal London Ophthalmic Hospital, which may be had best in Rankin vol. 2nd of 1860, p. 148 of Am. ed.; but also in Braithwaite 235, 239, 245.

**Iridectomy, Von Graefe's Operation.**—Iridectomy consists in the section of the cornea, as for cataract, for the removal of a portion of the iris. It is performed with an ordinary cataract knife, which is inserted at the margin of the cornea at the outer side of the eye, and, a counter puncture being made upwards, the knife cuts its way out, the aqueous humour escapes, and a portion of the iris

protrudes through the wound. The incision should not exceed from a fifth to an eighth of the whole circumference of the cornea. The iris is next drawn out sufficiently to allow of its pupillary margin being excised exterior to the opening. From a quarter to a fifth of the whole iris is now removed by means of a pair of scissors, and its cut edges are retained at each angle of the incision, thus exposing to view the edge of the lens. After a few days the wound heals, and the anterior chamber rapidly re-fills. For his mode see Braithwaite 235, and 239 Eng. ed.

**Bowman's Operation.**—This surgeon operates in a similar manner to Von Graefe, but is satisfied in removing from a seventh to an eighth of the whole iris; and selects the upper part of the cornea for the incision, that the lid coming down upon the eye may act as a substitute for the iris, and hide its imperfection. He does not retain the edges of the iris in the wound, but permits them to re-enter the eye; and, unlike other surgeons, is unwilling to allow any effusion of blood into the anterior chamber to remain to be absorbed. He describes his mode in Braithwaite 235, and 239.

**Critchell's Operation.**—This consists in the introduction of a broad needle through the cornea close to the sclerotic, and after the evacuation of the aqueous humour, in drawing out a portion of the iris through the opening by means of a blunt hook, where it remains and acts as a tent, for several days, to drain away the fluid and prevent the wound from healing. Br., vol. 37, pp. 268, 273, and 443.

**Hancock's Operation.**—Hancock, holding that glaucoma depends on constriction of the globe produced by spasm of the ciliary muscle, divides the latter by introducing a cataract knife at the outer and lower margin of the cornea, pushing it obliquely backwards and downwards until the fibres of the sclerotic are divided for rather more than an eighth of an inch, being careful to avoid the wounding of the lens with the point of the knife. This he contends, without being as painful or injuring the iris, is equally as successful as Von Graefe's operation for the cure of glaucoma. Br. 245. A poor picture of his mode may be found in Hogg's work on the ophthalmoscope, p. 40.

**Nunnley's Operation.**—This is the same as Hancock's, but commencing posteriorly, he inserts the knife into the sclerotic, and cuts forward into the cornea, making an incision about a third of an inch in length. Br. 245.

**Rationale.** Laurence, speaking of our ignorance on this subject, truly remarks,—"Whilst nearly every other surgical operation has some tangible reason to exhibit for its performance, iridectomy stands almost alone in the utter insufficiency of the various far-fetched explanations that have, up to the present, been assigned for its assumed efficacy for the cure of glaucoma."

W. E. B.