

**DOUBLE CONGESTIVE GLAUCOMA AND THE
RESPONSE TO DIATHERMY**

BY

J. EDWARD MARTIN

SENIOR RESIDENT OFFICER, BRISTOL EYE HOSPITAL

I AM privileged by the courtesy of Mr. Walbank to submit the details of this case, which may interest others computing the value of diathermy as an ancillary form of treatment in the reduction of increased intra-ocular tension. It is of unusual interest in that, in the same individual, one eye was used as a control against the other, both being in a state of hypertension as the result of similar pathological sequences.

Since I was in charge of the Wards as well as of the Diathermy Department, I had the opportunity of controlling treatments from the time of admission. In this case no previous treatment had been given.

The apparatus employed was the Moorfields pattern made by Messrs. Weiss, the active electrode being of lead as adopted by Mr. F. W. Law.¹

I use three layers of gamgee, wrung out in normal saline, in the form of pads between the active electrode and the lids.

The milliampère-meter readings mentioned are the mean, the output being slowly increased during the first minute up to about 500 to 600 m.a. and then reduced at the patient's direction, as the conductivity increases with the accumulating thermal response.

Tonometry was carried out with a Schiötz instrument with a concave piston end.

S. C., aged 63 years, a packing case maker, of poor physique, and of toxic appearance, gave the history during the last six or seven months of recurrent mild attacks of pain above both eyes, but more so in the right, accompanied by dimness of vision and lasting two to three days with apparent recovery during the intervals.

Vision had diminished during the previous week so that on Monday he was unable to go to work, while on Tuesday he developed severe pain in both eyes. On Wednesday morning following a bout of vomiting he was admitted to hospital complaining of pain and dimness in both eyes. Leeches were applied to the right temple and a purge given.

A central leucoma of the right cornea, lens opacity and oedema of the epithelium in both eyes rendered media examination impossible. The anterior chambers were shallow. The visual acuity recorded may or may not be relative. No corrections were worn.

DOUBLE CONGESTIVE GLAUCOMA

The following table shows the sequence of events :—

| RIGHT EYE | | | | LEFT EYE | | | | |
|--------------------------------------------------------------------------------------------------|---------|---------------|---------------------|--------------------|-----------------------------------------------------------------------------|--------|----------------|---------------------|
| Treatment | Vision | Schiötz | Pupil | TIME | Treatment | Vision | Schiötz | Pupil |
| Eserine 1% half-hourly. Heat | H.M.'s. | mm.Hg. =63 | $\frac{3}{4}$ oval | 26/9/34 Noon | Diathermy, 5 mins. 400 M.A. One instil- lation of eserine 1% | 3/60 | mm.Hg. =115 | $\frac{1}{2}$ oval |
| Continued | | =72 | Same | 5.30 p.m. | | | =15 | $\frac{1}{4}$ round |
| | | =83 | Same | 9 p.m. | One instil- lation of eserine | | =15 | Same |
| Diathermy. 5 mins. 450 M.A. Eserine 1% repeated four hourly. Heat continued | | | | 9.15 p.m. | | | | |
| Heat dis- continued. Eserine con- tinued four hourly | | =30 | $\frac{1}{2}$ round | 27/9/34 10 a.m. | Eserine 1% four hourly | | =26 | Same |
| | 1/60 | =24 | Same | 28/9/34 6 p.m. | | 5/60 | =14 | Same |
| | 6/36 | =27 | Same | 30/9/34 Noon | | 6/24 | =18 | Same |

On September 30, the result enabled further ophthalmoscopic examination to be made, showing the left vitreous to be clear, and cupping of the disc. Sufficient detail was seen of the right media to exclude intra-ocular haemorrhage.

The blood pressures were 120/90. The fields were slightly concentrically contracted.

Here the interest, from the pre-operative preparation point of view, ends.

REFERENCE

Law, F. W.—*Trans. Ophthal. Soc. U.K.*, Vol. LIII, p. 474, 1933.



DOUBLE CONGESTIVE GLAUCOMA AND THE RESPONSE TO DIATHERMY

J. Edward Martin

Br J Ophthalmol 1935 19:
48-49

doi: 10.1136/bjo.19.1.48

Updated information and
services can be found at:
<http://bjo.bmj.com/content/19/1/48.citation>

These include:

Email alerting service

Receive free email alerts when
new articles cite this article.
Sign up in the box at the top
right corner of the online
article.

Notes

To request permissions go to:
<http://group.bmj.com/group/rights-licensing/permissions>

To order reprints go to:
<http://journals.bmj.com/cgi/reprintform>

To subscribe to BMJ go to:
<http://group.bmj.com/subscribe/>