

AN ADDRESS

DELIVERED AT THE OPENING OF

THE SECTION OF OPHTHALMOLOGY,

At the Annual Meeting of the British Medical Association, held in Worcester, August, 1882.

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ON SOME ADVANCES IN MODERN OPHTHALMIC SURGERY.

GENTLEMEN,—Such is the distinguished position attained by the British Medical Association, that all who are called to fill its chief offices at the annual meetings cannot fail to appreciate the honour and responsibility of their status. Peculiarly so must this be the case when—commemorating, as we do to-day, the fiftieth year of our foundation—we are anxious to stand before the world worthy descendants of our worthier sires. It is to their foresight and public spirit that we owe our corporate existence; and we may be pardoned expressing a doubt, if any other profession can boast a voluntary association as widespread, disciplined, and influential as the British Medical.

My only present regret is, that the office to which I have been chosen has not been filled by one more able than myself to do it justice. I would yield to no one for good will, but I frankly confess that the limited powers at my command are cramped by a sense of responsibility which would weigh me down, but for implicit trust on the generosity of those I have the honour and happiness of addressing.

Contributions on ophthalmology have for many years constituted a part of the proceedings of the Surgical Section; and although so far back as the year 1865, when the Association met at Cambridge, a proposal was made, unhappily without effect, that an address should be given on ophthalmology, it was not until fifteen years later, when we met again in the same university town—a red-letter year in the annals of our Society—that, of eight sections, ophthalmology attained the distinction of forming one. For this, I believe, we were very much indebted, in the first instance, to the zealous efforts of Dr. Macnaughton Jones, the clever indefatigable secretary, the embodied administrative spirit, of the annual meeting held at Cork, who arranged in that year for ophthalmology and otology to form a Subsection of surgery. At Cambridge, the Section derived distinction and prestige from being presided over by a scientist of European renown, Mr. William Bowman; and the occasion was also marked by the presence of Professor Donders, who made an important communication on the Colour-sense.

Proverbially slow as the English are said to enter upon new paths, events do nevertheless with us sometimes march apace; and so, in June 1880, was founded the Ophthalmological Society of the United Kingdom, the most important public movement in relation to our speciality that has taken place in this country in the last half century. The need of such a society, and the appropriateness of its title, have been shown by the numbers who have sought admission to its membership and attended the meetings from every part of the three kingdoms. Its communications have been enriched by papers from physicians, who avail themselves of the ophthalmoscope in their investigations of morbid conditions of the nervous centres and other organs. So long as this happy combination continues in our society, all danger of the prevalence of the narrowness of specialism will be avoided; indeed, it is difficult to estimate the advantages that must accrue from an association of workers in a special department like our own, with scientific physicians versed in all the methods of physical investigations, and trained to the higher problems of physiology and pathology. The large attendance at the meetings, the thoroughness, and often originality, of the work brought forward, and the animated discussions, all augur favourably for the creation of a British School of Ophthalmology, and warrant us in looking hopefully to the time as near at hand when we shall be no longer living, as it were, in a borrowed light, but in one generated by the national genius and enterprise of the most practical people in the world.

While profiting largely by the more exact methods employed by our continental brethren, have we not too readily accepted, and closely imitated in every detail, certain of their operative procedures, dazzled as it would seem by the refined ingenuity of their originators? We shall all be agreed that the occurrence of sympathetic ophthalmia as a sequence of cataract-extraction was so exceedingly rare as to be an almost incomputable quantity, before the adoption in this country of

the linear method of Von Gräfe. How significant has been the recent discussion at the Ophthalmological Society on sclerotomy, of the need amongst us of a court wherein may be sifted the evidence of a large number of surgeons—quite independently of the domination of schools—upon a point in surgical practice, the merits of which are evidently, as judged by that discussion, on their trial, although pronounced, by an eminent Parisian surgeon, the remedy *par excellence* for almost every phase of glaucomatous tension of the eyeball.

The past year has been notable as the one in which the International Medical Congress met in London, and attracted an immense gathering of the *savans* of Europe, and wherein the section representative of our speciality maintained a position of importance equal to that of any other; in proof of which, I refer you to the *Transactions* which have now been for some weeks in your hands, a monument of work accomplished of high character, and pregnant of promise of yet greater benefits to be conferred by medical science upon the human race. If you will call to mind the ample reports, that have appeared, of the proceedings of the Congress, and also of the Ophthalmological Society, in the medical journals of Europe, embracing, as those papers and discussions do, a wide field in our art, and a great variety of subjects, I shall hope to enlist your sympathy in my embarrassment to discover matter for an opening address, which some may think should be garnished by the freshness of attractive novelty, but which others may accept not less willingly, because of its more modest pretensions. Novelty is doubtless one of the glories of our time, but is it not also one of its banes? Might not the thirst for something new be advantageously moderated in favour of a calm and judicious appreciation, not aspiring to dazzle by its brilliancy, but to be useful for its soundness? We need not trouble ourselves to seek an answer to the question, for a mere glance at the list of subjects to be brought before us, the reputation of the authors and debaters, are an ample guarantee that our proceedings will neither lack novelty nor soundness.

Precedent has established that the proceedings of each section should be introduced by remarks from the chair, it shall be my endeavour only to detain you briefly, so that we may engage in the business to which you cannot look forward with greater hopes of interest and instruction than I do.

Cataract and its treatment is a theme that never fails to command interest. Papers in relation to its cure are promised to the Section by Dr. Edwyn Andrew, Mr. Cowell, Mr. Anderson Critchett, and Dr. Taylor. At the recently held International Congress, it was stated by Dr. Horner that he had reduced, by the employment of antiseptics, his cases of suppuration to a fraction over 1 per cent. as compared with 6 per cent. I assume that, in order to compass results so highly favourable, special care must have been taken to exclude patients suffering from diabetes, renal degenerative changes, or advanced atheroma. When we have doubts of the sufficiency of the patient's reparative powers to heal the incision by primary union, Desmarres' operation of subconjunctival extraction, with the modern improvements as to length of corneal incision and treatment of the iris, is well worthy of adoption. In a case of diabetic cataract, I have recently had recourse to reclinacion, and obtained a good result as to vision. This procedure is, in my opinion, too much neglected in cases where a cutting operation presents unusual risks. The steps of the operation, as I have pointed out elsewhere, are facilitated, and obtain greater precision by the employment of two needles; one being passed through the cornea in order to press the lens back to a sufficient distance from the iris to allow of the scleral instrument being brought in front of the lens without entanglement in its capsule, or the iritic structure.

At the Birmingham Eye Hospital the extractions are dressed with pads of absorbent cotton-wool medicated by boracic acid. I believe the opinion is very general among British surgeons, that the value of antisepticism in operations upon the eye has yet to be determined. Of this I am confident, that, since in the last few years the labouring poor have been, as a consequence of the receipt of higher wages, better fed, the results of our hospital operations have improved, and inflammatory diseases have been less frequently followed by destructive changes.

Suppuration of the flap after a cataract operation is sometimes found, unhappily when too late, to be traceable to dietetic poverty. My earliest experience of this condition was in a middle-aged woman, upon whom I had performed a very satisfactory double extraction; not the slightest pain followed, but both corneae, in the course of forty-eight hours, became infiltrated with pus. We found that she had been living exclusively upon tea and bread; neither meat nor bacon had formed a part of her diet, yet she looked well. In large hospitals, and in others during the prevalence of erysipelas epidemically, if we operate, antisepticism, in some form, is obviously a precaution which should not be neglected.

There is an exceedingly rare complication of hard cataract which deserves notice, and in which extraction affords success. We have no indication of its presence until we are in the act of making our flap, when we are surprised to find that the aqueous humour continues to flow in freedom and quantity quite unusual, and also that the sclera presents wrinkles before the section is finished, and when completed we have before us a collapsed bag, the cataract lying far back. I have operated in two cases, one of whom was a female dwarf, the other a male fifty-four years of age; recovery took place without a bad symptom, and the vision was good for the reading and correspondence required in a large business.

Of late, the subjects of intra-ocular tension and glaucoma have excited renewed attention in respect to the changes of position and structure of some of the parts that are concerned in effecting the normal filtration of the intra-ocular fluids, and especially to the surgical methods best adapted for relief of the various phases of the glaucomatous process. A new operation will be described to us by Dr. Grossman.

It is just twenty years ago since I combated the then prevalent dictum that all cases of excess of tension necessitated an iridectomy, and declared that my experience justified me in asserting that the recurrence of tension after an iridectomy performed for the relief of chronic or subacute glaucoma, "may generally be completely overcome without resorting to a second or third iridectomy as advised by Von Gräfe." (*Tension of the Eyeball; Glaucoma*. London, 1865, p. 78.) And in speaking of the statistics of iridectomy, after referring to their being chiefly favourable as to cases of acute primary glaucoma, I proceeded to say that a recourse to Von Gräfe's operation in all instances of excess of tension would be unjustifiable, because there were other surgical measures unattended by danger to the eye, and which do not entail a permanent deformity, that are fully competent to insure all the advantages which proceed from the restoration of the intra-ocular tension to its healthy standard. I may be permitted to note the fact that this teaching is now admitted to be correct.

In some cases where exalted tension has continued, or recurred after an iridectomy, an incision made through the base of the coloboma backwards, dividing the ciliary region at a right angle with the corneo-scleral union, I have seen to restore elasticity to the eyeball. Mr. Hancock, when he operated for glaucoma, used a Wenzel's cataract-knife, and as it appeared to me, took care to secure, if possible, a loss of the vitreous humour through the wound, by giving its end the shape of the italic letter *f*. The incision also was not executed by a slow passage of the knife, but chiefly by a stab. I mention these particulars, because there is a disposition on the part of some surgeons to try the method, and because, in cases where a slow and careful "division" has been practised by myself and others, the tension has not been permanently reduced.

The earliest notice of section of the ciliary region as a surgical measure is to be found in the *London Medical and Physical Journal*, 1802 (Vol. vii, p. 209). Dr Whyte there states that, in cases of enlargement of the anterior hemispheres of the eye, occurring in Europeans, in consequence of incautious exposure to a tropical sun, he had derived great advantage by puncturing the sclerotic "behind and parallel to the iris; the outlet was proportioned to the existent expansion, and in this way he had successfully extracted cataracts." Here, then, we have anticipated, by upwards of fourscore years, the application of sclerotomy to cases of hydrophthalmia. Verily, we may say, with the King of Israel, there is "no new thing under the sun."

In the operation known as intra-ocular myotomy, a Sichel's cataract-knife is passed on the flat through the corneo-scleral union, the pillars of the iris, and through the ciliary muscle, penetrating sometimes the vitreous body; the internal incision is one-sixth of an inch long, and parallel to an equator of the eyeball. In glaucoma this operation opens up a communication between the two chambers, thereby restoring or enlarging the iritic angle; it also, in some way, alters the position, or the convexity of the lens, in evidence of which we have had, in our experience, a diminution of myopia where the operation has been applied for the relief of that defect. In glaucoma, one of its effects may be to increase the width of the circumferential space. Be this as it may, a reduction of tension followed the procedure, even where the escape of aqueous humour was so slight as to occasion doubt whether any had been lost. On looking over my published cases, they appear to me to compare favourably with those of sclerotomy, as reported by English surgeons. My experience of sclerotomy has not been large. In a woman of 38 years, suffering from chronic glaucoma simplex, T + 3, it raised the vision from the mere perception of the shadows of fingers to reading quarter-inch type. In each eye there was a large protrusion of iris, covered by the conjunctival flap, apparently forming a supple-

mental chamber. Dr. Wolfe has promised a paper on sclerotomy. Of the value of eserine in acute glaucoma we have testimony of the highest character. Ophthalmic therapeutics have not received so important an addition in the present decade.

But while we may justly congratulate ourselves upon the advance that has been made in our knowledge of the pathological changes found in glaucomatous eyes, and in the possession of eserine, and of other operations besides iridectomy, we are still in doubt as to what is the *primum mobile*—the first departure from the normal physiological state that initiates acute glaucoma in the apparently healthy eye of a healthy individual.

Another question also confronts us—viz., why is it that, when glaucoma establishes itself in the eye of a girl under twenty years of age, it can be perfectly and permanently cured by medical treatment? At this early period of life I have treated only two instances, which were of the ages of 20 and 17 years, respectively. The younger lady was a patient of Dr. Hugh Kerr, of Cradley Heath, in this county. The attack was sudden, unattended by pain or external redness; the vision was abolished, T + 3. The patient took iodide of potassium in full dose, and recovered normal vision and tension, which has continued until now, a period of five years. There is another peculiarity in these cases, which I state on the authority of an eminent ophthalmic surgeon. They afford "very bad results if submitted to iridectomy." Again, what is the explanation of the high tension which is alleged to have occurred after the lens had been removed? I have seen it present where a blow had detached the whole of the iris, so that there could not possibly be an obliteration or narrowing of the iritic angle.

There are some other subjects to be brought before us, which, were it not that the present epoch has been endowed with the immortal discovery of the ophthalmoscope by Helmholtz, would have been impossible of elucidation. Mr. Nettleship will open a discussion on the question: To what extent do the signs derived from the examination of the eye and its appendages contribute to the localisation of central nervous diseases? Dr. Gowers, and other eminent brethren, are expected to take part in the discussion. The application of the ophthalmoscope to the diagnosis and treatment of errors of refraction will be treated in a paper by Mr. Juler. Mr. Priestley Smith has a new perimeter to show, and, for discussion, a curiously interesting medical case.

Gentlemen, I have detained you too long, and wearied you, I fear. Let me assure you that I would gladly have spared you these pains had not that obdurate and cruel tyrant, Precedent, dominated and enslaved me. I have, I confess, not altogether unwittingly followed it; for the position I now occupy, by the favour of my brethren, only falls once in a lifetime to the lot of any of us. I am old enough, as many of us are—so rapid has been the advance—to remember ophthalmic surgery as taught by Lawrence, Tyrril, Mackenzie, and Guthrie. How obscure did they leave much of the *rationale* of many eye-diseases; how helpless and imperfect much of their treatment! Minute anatomy, physics, and applied mathematics have changed all that. We can now retort to those who sneer at the varieties of medicine by pointing to our little domain, the privileged home of an almost exact science. That it is so, the labours of this Section will, I feel certain, help to prove; and to that demonstration, gentlemen, I cordially invite you.

ASSOCIATION OF AMERICAN MEDICAL EDITORS.—At the annual meeting, held at St. Paul, June 5th, the following officers were elected: *President*, Dr. N. S. Davis, Chicago; *Vice-President*, W. M. Carpenter, New York; *Secretary*, John V. Shoemaker, Philadelphia. On motion, the Secretary was instructed and authorised to make such arrangements regarding the time and place of holding the next annual meeting as he should consider to be the best to promote the interests of the Association. On the evening preceding the next annual meeting of the American Medical Association, voluntary papers will be read and discussed. The following evening, President Dr. N. S. Davis will deliver the annual address. The members of the profession are especially invited to be present at both meetings.

THE Medical Institute of Valencia, in Spain, offers a series of prizes for 1883, consisting of gold medals and the honorary fellowship of the Society, on the following subjects: In medicine, "Are heart-disease, phthisis and insanity, more frequent in the present day than in times past? if so, state the causes". In surgery, "On the treatment of varices". In pharmacy, "On a practical method of estimating the percentage of active principles, present in medicinal extracts". In science, "On the application to medicine of the doctrine of the unity of force." A special prize will also be offered for the best essay "On the indications for tracheotomy". Intending competitors should address the Secretary of the Institute at Valencia.