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OBSERVATIONS

ON THE USE OF BELLADONNA EMPLOYED AS A DOUCHE,

IN IRITIS AND SOME OTHER FORMS OF OPHTHALMIC DISEASE.

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Iritis and Inflammation of the Conjunctiva cured by the Injection of Belladonna.

Sally Allum, aged 20, an unhealthy looking country girl, was admitted into the hospital, June 22, on account of a severe inflammation of the conjunctiva and iris of both eyes. Her complaints had existed for about two months, and were not attributable to venereal infection; her face and eyelids were puffed and swelled, and the gums extremely sore from the effects of mercury, which she had been taking about six weeks with little or no relief to her symptoms. The following were the appearances observed on admission:—The conjunctival membrane of both eyes was greatly inflamed, and of a vivid bright red colour. There was some slight chemosis. The corneæ were of a dullish appearance, as if from the effusion of lymph into their texture, which had partially destroyed their natural transparency; seen through them, the irides appear inflamed with bright red patches of congested vessels in different parts of their structure, and some slight irregularity in their pupillary margins. The right eye was not altogether so much inflamed as the left, but she had very little vision with either; there was a constant discharge of pus from both. There was a large ulcer on the lower part of the left cornea, just below the pupil, the vessels leading to which were rather more congested than the rest. She has been suffering great pain in her head lately, especially towards the afternoon, when the pain in the eyes has become increased.

There is always excessive sensibility to light; the catamenia have not appeared for seven or eight months; there is considerable fever, generally increased in the evening; had never previously been subject to inflammation of the eyes. To be placed on middle diet and to have three ounces of port wine daily. She was ordered to have the following lotion warmed, injected rather forcibly into the eyes from a powerful syringe, frequently during the day, and to take a chalybeate mixture:—

Extract of belladonna, half a drachm;
Sulphate of copper, five grains. Dissolve in a pint of water.

Sulphate of iron, twenty-four grains;
Water, twelve ounces. To take two table-spoonfuls twice a-day in a glass of tepid water.

No. 80.

Carbonate of soda, twenty grains. To be taken with each dose of the mixture.

It would be tedious to trace the progress of this case through its different stages of improvement; it will be sufficient to say, that in a few days after the irrigation had been commenced, the inflammation of the conjunctiva began to subside, and the ulcer on the cornea assumed a more healthy appearance; the patient's general health improved in proportion. At the end of a month and four days the ulcer had completely healed; the irides had regained their natural healthy condition, and, with the exception of a slight leucomatous discolouration in the situation of the ulcer, the cornea had regained its transparency. She was, therefore, discharged from the hospital with very trifling remains of her complaint. She afterwards attended as an out-patient, and was ultimately discharged quite cured, and remained so for about a twelvemonth, when she had another attack of her complaint, but, as she did not come under my care, I had no opportunity of observing its progress.

The amendment under the use of the belladonna in this case was rather slower than in most of those which I have had an opportunity of observing. In the first part of the treatment, although the appearance of the irides became rapidly improved, and the signs of inflammation in them rapidly decreased, they seemed through the previous inflammation to have contracted adhesions to the parts behind, and thus their dilatation was prevented. By and by, however, it seemed as if the constant disposition to dilate, which the use of the belladonna produced, had caused the adhesions to give way; and thus, one morning, I found the pupils fully dilated and apparently quite free of the parts about; I then diminished the quantity of the belladonna, only using it now and then, and ultimately substituted warm water in its stead.

Chronic Inflammation and Suppuration of the Lachrymal Sac and Conjunctival Inflammation cured by Irrigation, or Warm Water Douche.

Amelia Exall, aged 17, admitted March 1. She states that her disease has existed more or less for about twelve months. There is a general oedematous condition of the lids of the left eye, with erysipelatous redness of the skin extending to some distance around it; the surface of the eye is constantly bathed in pus; there is a soft swelling over the situation of the lachrymal sac, caused by an accumulation of matter within it, which disappears on pressure, and pus exudes through the lower lachrymal duct, when the sac becomes empty and the swelling disappears; has had imperfect vision in both eyes for some time past; the cornea looks rather dull, but the iris is unaffected by the disease; there is considerable conjunctival inflammation of both eyes. As far as I could ascertain, she had been living very

scantly, and had paid no particular attention to her complaints.

To be placed on full diet.

Compound decoction of sarsaparilla. A wine glassful twice a day.

Tepid water to be forcibly injected from a powerful syringe into the eye several times a day.

March 4. The abscess over the lachrymal sac burst last night, and discharged a considerable quantity of pus mixed with blood.

22. ~~The opening which had been formed by the bursting of the sac has completely healed, and nothing but a slight cicatrix remains to show where it has been.~~ On pressing the lower lachrymal duct, there is now no appearance of pus, and the tears seem to take their natural direction. The œdema of the lids has entirely subsided, and the eye, generally, has recovered its natural healthy appearance; the power of vision in both eyes being completely restored. She was discharged from the hospital.

As the inflammation in this case did not seem to extend beyond the superficial tunics of the eye, it was not deemed necessary to use the belladonna. I have generally in such cases found warm water alone sufficient; the beneficial results which I have observed to follow seeming rather to depend upon the direct action of the douche than upon any particular effect of the remedies I have occasionally used in solution in this manner; at least, this has appeared to me to be the case in almost all the instances of acute inflammation of the external tunics which I have treated in this way.

In some cases of atonic scrofulous inflammation, I have observed that where the use of the warm water douche does not speedily affect the disease, the addition of five grains of sulphate of copper to the pint of water has been followed by the most marked results.

Inflammation of the Conjunctiva with Vesication, cured by Irrigation or Syringing with the Belladonna Lotion.

Jane Hunt, aged 21, a tall and rather stout young woman, and of anæmic appearance, was admitted into the hospital, March 22, on account of an inflammation of the conjunctiva of both eyes, which had existed about a fortnight. She had shortly before been an inpatient with ulcers of the legs, which had been quite cured before she left the hospital. Her disease on re-admission presents the following appearance:—There is a general turgescence of the conjunctival membrane covering the eyes, with great pain; some intolerance of light, and a sensation of grittiness upon the surface; the tarsal conjunctiva is but slightly affected; the corneæ have a dullish appearance, not apparently from any effusion of lymph into their texture, but from their having lost their natural glistening appearance, owing to the pus secreted from the other parts of the surface of the eye being diffused over them, and in some measure adherent to their external surface.

She had been suffering, and still suffered from considerable pain in the head, and had some fever, especially at night. The irides had begun to participate in the disease, being altered in appearance, with slight vascular patches in their texture.

On the right eye there are vesicles upon the conjunctiva, the meshes of vessels leading to which are of a brighter colour and more injected than the rest, like those usually observed running towards ulcers in the cornea. There are two such vesicles on the left eye, and one upon the right, situated just outside the margin of the cornea, and partly encroaching on its texture.

Compound decoction of sarsaparilla, four ounces. Twice a-day.

Extract of belladonna, one scruple;

Sulphate of copper, five grains;

Water, a pint. For a lotion. To be forcibly injected into the eyes with a syringe in the manner of a douche, three or four times a-day, the lotion being previously warmed.

To be placed on full diet.

24. Three days from her admission, a marked improvement has followed the assiduous use of the syringe. The conjunctiva has in a great measure recovered its natural healthy appearance, the congestive fulness of the vessels having subsided, excepting in those immediately leading to the vesicles. The corneæ are brighter from the cessation of purulent discharge, which does not now, as at first, interrupt her vision. The irides appear healthy underneath, the patches of lymph, and red vessels in their texture, having disappeared. The belladonna lotion has produced a dilatation of the pupils which, however, contract in a very strong light. She was therefore ordered to use it only once a-day, and the warm water douche at intervals.

30. She has been using the belladonna douche only once a-day since last report. She has been gradually improving, in fact I may almost say her disease has been removed.

There is now no appearance of the vesicles, the fluid of which has become absorbed, and the conjunctival membrane under which it had collected has sunk down to its natural level. Her general health has become so much improved, that I have noted her to be discharged from the hospital next week.

The foregoing case was probably one of acute inflammation of the conjunctiva, terminating in effusion underneath that membrane, which is found not unfrequently to end in ulceration. The good effects of the irrigating treatment were here very remarkable, and I have recorded it as most particularly instancing the beneficial results of this particular method of combating this species of inflammation, of which this case was a singularly well-marked example.

REMARKS.

I have selected the foregoing cases from a great number of similar ones, because they appeared to me the best calculated to show the various lesions of the eye, which the method of treatment I have adopted was calculated to relieve.

It will be observed, that in the application of the douche, or irrigation to these cases, I used different ingredients in solution, according to the particular structures involved, or the peculiar form of disease which presented itself. In the case of incipient iritis and atonic ophthalmia, I made use of a lotion containing belladonna, with a small quantity of sulphate of copper; but I used it a very short time, finding the

symptoms disappear under its employment, and warm water alone was afterwards sufficient for the cure. In the case of more confirmed iritis, I persisted in the belladonna douche during the whole period of the treatment, because it was necessary to do so from the intensity of the disease, and the adhesions which had apparently occurred. In the case of simple conjunctival inflammation, with lachrymal abscess, I used warm water alone, because the iris being unaffected, it was not necessary to employ the belladonna. I have used other remedies in solution, more particularly the wine of opium with sulphate of copper, which I have found especially useful in the scrofulous affections of the eyes in children where a slightly stimulating douche is required.

The manner in which I use the douche or irrigating method in this hospital, and in private practice, is as follows:—If the iris be the seat of the disease, and the conjunctiva likewise affected, I prescribe the following lotion:—

Extract of belladonna, twenty grains;
Sulphate of copper, five grains;
Water, a pint. For a lotion.

This is to be injected frequently during the day with a clean brass syringe, with an ivory pipe capable of holding from three to four ounces of the fluid; at first it is necessary to throw the stream upon the closed lids, at least for the few first times. By degrees, however, the patient becomes inured to the shock, and after a time is able to receive the continued stream upon the exposed surface of the eye without experiencing any disagreeable sensation. The most marked improvement will be found to follow the three or four first applications of the douche.

Besides the intrinsic value of the douche as a remedy in ophthalmic disease, it possesses, I think, advantages over the common method of applying lotions to the eye. It is impossible, or at least difficult, by any other means, to remove entirely from the surface of the eye the pus which is secreted from the inflamed membranes, especially as some slight force is sometimes necessary to detach it, and I have often found that the simple contact of fluid in an eye-glass, which is the most common method, will not produce its removal. The other means which are commonly employed to convey lotions to the eye, not unfrequently increase the irritation of the surface, and very often aggravate the disease.

With regard to its application generally in diseases of the eye, I was led to adopt it from witnessing the excellent effects of the warm douche bath when used in diseased states of the fibrous tissue of the joints, and I thought that, as the structures were somewhat analogous, something like the same results might be produced. In this I have not been disappointed, and, as I have found the value of the remedy myself I am anxious that it should have a fair trial, not wishing to take any credit for my suggestion until its merits have been more fully ascertained, and I shall feel obliged to any one who will give it a fair and impartial trial.

Its good results, in most of the cases which I have seen, seem to be due to the gently stimulating effects which warm and medicated water, applied in this way, have upon the minute vessels of the tissues of the eye, reducing inflammation by increasing the circulation

through them where the external tunics only are concerned; but where the iris is either primarily or secondarily implicated, of course much must be referred to the specific effect of the belladonna in allaying the increased nervous irritability of its tissue, upon which the inflammation may often be said to depend.

There is a particular form of ulceration of the cornea in which I have found this plan of treatment particularly useful.

In ill fed and anæmic persons, ulcers will frequently appear on the cornea, without any obvious sign of inflammation in the surrounding vessels; they seem to arise, in fact, from a deficient nutrition of its texture. It has been proved by microscopic experiments, and is now generally supposed, that the cornea is not vascular, but that it derives its nourishment through absorption or imbibition from the surrounding vessels, and as these vessels participate in the general anæmic condition and powerless state of the circulation, of course the cornea, which is dependent on these for its supply, in some measure loses its vitality, and destruction of its texture ensues. In these cases I have found the irrigating treatment of the utmost possible service.*

P.S. I wish to correct an error which crept into my report of a case of purpura in the last week's Journal. I was misinformed respecting the existence of hæmorrhage from the mucous membranes, which I stated as not having occurred. I have since, however, been told that epistaxis, and some degree of hæmoptysis, and some slight signs of the hæmorrhagic tendency in other parts of the system, had taken place during the latter part of the patient's illness.

* For a more particular description of this condition—vide Dr. Williams's clinical remarks.—“Medical Gazette.”

A C A S E

OF

MUSCULAR AMAUROSIS,

CURED BY THE

DIVISION OF FOUR RECTI MUSCLES.

TO THE EDITORS OF THE PROVINCIAL JOURNAL.

GENTLEMEN,—The accompanying case of Henry Skinner is one which I published, amongst others, in a letter addressed to Dr. Farre, for the purpose of illustrating the symptoms of impaired vision, depending on morbid muscular contraction, and of which my reviewer, in the “British and Foreign Medical Review” for October, 1841, says, “There is not a shadow of evidence that the symptoms depend on the alleged cause”—namely, that of muscular contraction. I, therefore, in the present report of the case, have given a repetition of what I then published concerning it, with its subsequent history and treatment, from which I think it will be evident that the opinion of the said reviewer was, to say the least of it, wanting in judgment.

I remain, Gentlemen,
Your obliged servant,
JAMES J. ADAMS.

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