Account of a singular effect produced by acupuncture in a case of protracted lock-jaw / [William Seller].

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ACCOUNT

OF A

SINGULAR EFFECT PRODUCED BY ACUPUNCTURE IN A CASE OF PROTRACTED LOCK-JAW.

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Cases of lock-jaw of long duration are not so uncommon, at least in females, as to attract great attention. Of a case of this kind, however, I thought it worth while to put together some particulars several years ago, on account of the singular effect which followed the attempt to cure it by acupuncture. The case had been previously treated at intervals by several medical men; it was put into my hands in May 1827 by Dr E. Binns, who was then pursuing his medical studies here, and for the first period of the treatment I had the benefit of his assistance.

The patient was an unmarried woman about twenty-five years of age, a lady's maid, who by her own report, though usually active and healthy, had been subject from an early age to frequent attacks of suppurating sore throat, in which the jaw often became nearly immovable for two or three days before the discharge of the matter. In the spring of 1826, she suffered severely from one of those attacks, which, after lasting for several weeks, ended in an entire loss of the motion of the jaw. Some severe symptoms, which by the description appear to have been of a hysteric nature, occurred about the same time.

This attack of lock-jaw, under the use of general and local detraction of blood, blistering, and the like, yielded at the end of six weeks, in so far that she could put a teaspoon into her mouth.

In this state the jaw continued till the month of January 1827, when it became again completely fixed without any new sore throat.

The same treatment as before, with the addition of galvanism, was resorted to, but on this occasion produced no benefit.

This account is drawn from her own statement; but I have ascertained from some of the medical men who had seen her up to that time, among others from the late Dr Abercrombie, that it is in the main correct.

It will be seen that the case came under my notice at the end of more than a year after the commencement of the first severe attack of lock-jaw, and four months after the jaw became completely fixed a second time. For several weeks previously, she had been under no medical treatment. At this time (May 1827), the jaw remained fixed against the strongest force that could be ventured on. There was pain in the regions of the temporal and masseter muscles on both sides, which was aggravated by any attempt to open the mouth forcibly. Some degree of swelling and a variable state of redness existed in the same regions.

The catamenia had not appeared from the time of the first attack of lock-jaw in the spring of 1826; and for the same period, or for about fourteen months, she had lost her voice, being able to speak only in a whisper. With the right eye she could just distinguish light, and saw so imperfectly with the left, that she found her way by groping when she entered the room. This affection of the eyes came on along with the first attack of lock-jaw, and amounted for seven weeks to total blindness.

From each jaw several molar teeth had been extracted, when the first attack of lock-jaw threatened, so that she could suck fluid matters with ease into her mouth. Her chief diet since the jaw became last fixed had been bread soaked in tea, as soups, eggs, and such other articles of animal food as she could take in were generally rejected by vomiting. Under this diet, her strength had become much reduced, her limbs were feeble, she walked with difficulty, and the slightest exertion fatigued her. The pulse was feeble, rather frequent. The bowels were easily moved; the urine was scanty and high-coloured. She complained of frequent headache and of restless nights; yet none of the more decided symptoms of hysteria were discoverable, though it is probable that the clenched hand, which I observed often afterwards, escaped my notice at this time.

By the use of laxatives, antispasmodics, mild tonics, and a more nourishing diet, persevered in for four or five weeks, her appetite and strength improved considerably, while no effect whatever had been produced by the fomentations, stimulating liniments, and the like, which were applied in the mean time to the jaw and temples.

At that time the acupuncture had reached the height of its reputation on the Continent, and had begun to attract a good deal of attention in this country. One case of hysteric lock-jaw had been reported as successfully treated by it.* In that case, reported by Carraro, the disease was of no more than two days' standing; two deep acupuncturations were made in the masseter muscles, and in three minutes the spasm of the jaw ceased.†

Although the case which I had to treat was unequivocally connected with hysteria, there was reason to think, from the inflammatory symptoms with which the disease originally set in, from the pain, swelling, and redness in the regions of the masseter and temporal muscles, present in a greater or less degree from the beginning, and from the relief obtained in the first instance by antiphlogistic treatment, that the affection was not purely spasmodic, but was kept up by a rigidity of the muscles closing the jaw, produced by previous inflammation, in consequence of which the antagonist muscles, under the mere influence of volition, had become inadequate to the effort of opening the mouth. I admit the probability of protracted forms of lock-jaw in females partaking in general of the same character with the long-continued contraction of such joints as the knee-joint, justly acknowledged to belong to hysteria, in which the acupuncturation of the affected muscles has been more recently practised with success;‡ yet the distinctness of the inflammatory symptoms in the case in question appeared a sufficient warrant for regarding it as allied to the sort of affections referred by Sauvages to trismus inflammatorius, and described by J. C. G. Ackermann as rheumatic trismus.

It was this view of the case which made me consider it more reasonable, in making trial of the needles, to insert them into the muscles which open the jaw, in the expectation of exciting these to such a contraction as might overcome the rigidity of their antagonists. My intention was, as a first experiment, to introduce two needles, one on each side of the mesial line, between the chin and the hyoid bone; but as the patient showed signs of alarm at the place chosen, the first needle was inserted close to the anterior border of the sterno-mastoid muscle, immediately behind the ramus of the jaw, as near as I could judge to the course of the digastric muscle. The needle had not penetrated much beyond the integuments, when to my surprise (for I had not great faith in the remedy), the teeth began to grate on each other, and the jaw to be drawn forcibly, by short convulsive efforts, to the side where the needle was inserted. I made haste to introduce another needle into the corresponding

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* See Edinburgh Medical and Surgical Journal, vol. xxvii. p. 343.

† Annali Universali di Medicina, Luglio, 1825, p. 65.

‡ Wilson, London Medico-Chirurgical Transactions, vol. xxi. p. 107.

part on the opposite side; and now the jaw was drawn from side to side, not by single alternate contractions, but by several convulsive movements on one side, followed by a nearly equal number towards the other side, interrupted occasionally by a momentary opening of the mouth, to the extent of about two fingers' breadth. This momentary opening of the mouth appeared to take place only when the last convulsive movement on the one side, coincided with the commencement of a new series of such movements on the other side.

When things had gone on in this manner for about one minute, the grating of the teeth grew more violent, while the lateral motion became less extensive than before; and this change was accompanied with an evident hardening of the masseter and temporal muscles, indicating that a reaction in these had arisen. The needles were immediately withdrawn—yet the same convulsive movement upwards continued. I introduced my thumbs, one on each side, between the jaws, where the teeth had been extracted, and was able, with some difficulty, to keep the teeth nearly free from each other, by pressing down the jaw. Even after this upward movement set in, an occasional temporary opening of the mouth took place, followed by a renewal of the upward motion.

About five minutes after the needles had been inserted, or about four minutes after they were withdrawn, the convulsion ceased. But in five or six minutes it was renewed, yet not with the same violence, nor was it of so long duration.

During the convulsion, more particularly in the latter part of it, when the upward movement prevailed, the patient suffered an increase of pain in the temples, and in the regions of the masseter muscles, which continued for some hours. In the joint itself there was no pain.

After this first trial of the needles, the patient could move the jaw from side to side with tolerable freedom, and open her mouth in a slight degree by a voluntary effort, while by pulling the jaw gently down she could introduce her finger.

That success, partial as it was, offered encouragement to proceed; but an unexpected occurrence gave room for some hesitation. The same evening, seven or eight hours after the insertion of the needles, the convulsion of the jaw returned spontaneously, with as much violence as at first, and lasted much longer. It was still going on when I arrived not less than half an hour after its commencement. I pressed down the jaw, and in two or three minutes the motion ceased.

My hesitation to proceed after this occurrence was overcome by the patient's own desire for the repetition of the operation. On each of the two following days, two needles were inserted, one on each side of the mesial line, between the chin and the hyoid bone, the effect being precisely the same, nearly to the

minutest particular, as on the first day. The convulsion continued after the needles were withdrawn, ceased and became renewed again after a few minutes, and returned spontaneously in the evening on both occasions.

Some increase of voluntary power over the jaw followed both applications of the remedy.

After this the acupuncture was interrupted for a week, owing to some derangement of the stomach and bowels, produced probably by the opiates administered with the expectation of preventing or diminishing the spontaneous movement of the jaw. During this period the joint retained all the motion it had acquired.

On resuming the remedy, several leeches were applied to both sides of the head, about four hours after each acupuncture, with the effect sometimes of preventing the spontaneous convulsion altogether, and always of lessening its severity. After each trial of the acupuncture, some improvement was observable; but as the spontaneous convulsion was almost always followed by a slight loss of motion, the progress made was but slow.

The needles were usually inserted to the depth of half an inch, and sometimes to the depth of an inch; most commonly, as above mentioned, one was placed on each side of the mesial line, between the chin and hyoid bone, while sometimes two or three were introduced, one above another, as near as possible along the mesial line in the same region, and when they were withdrawn about the end of one minute, the effect never deviated materially from that before described. It would have been altogether unwarrantable to make trials with the mere view of ascertaining what variations of effect might result from different methods of using the needles; there was, however, sufficient evidence that the convulsion continued longer, and was more severe when the needles were allowed to remain beyond the usual time, and on one occasion when the needles were in my absence introduced into the masseter of each side, the convulsion was reported to have been more severe owing to the greater violence of the upward movement. No effect was produced on another occasion, when a needle was inserted above the zygoma into the temporal muscle. It must be confessed, however, that the modus operandi of the needles in the production of the convulsive movement is far from having been made out in a satisfactory manner.

In combination with the leeches, as above described, the acupuncture was persevered in for ten days, and at the end of that time the patient could open her mouth nearly to the extent of two fingers' breadth, and with a moderate force draw down the jaw somewhat farther, while she could chew soft substances with tolerable ease.

In this state she went to the country. On her return, at the end of five weeks, she stated that she had gone on improving in health, and in power over the jaw, by drawing it down frequently with her fingers, till a few days before she returned, when being exposed for some hours in a cart to rain in a cold east wind, she was attacked with a severe and protracted convulsion of the jaw, followed by a considerable loss of its motion.

At this time the jaw could be pulled down nearly as far as before, but the voluntary power over it was by no means so great as when she left Edinburgh.

At her own desire, the needles were resorted to again, after an interruption of six weeks. They were applied in the same manner as before, and the effect was of the same kind as on the former occasions; but the convulsion of the jaw was much more severe, and the upward motion, in particular, was so powerful that one person could seldom succeed in preventing the collision of the teeth and the bruising of his own fingers, without the assistance of another, who pulled down the chin with the palm of one hand, while with the other he held back the forehead. The pain produced by the convulsion was greater, and lasted longer; while the spontaneous convulsion recurred several times in the evenings, after each of the first trials. As leeching did not succeed in mitigating the convulsion, as on the former occasions, and as there was reason to suppose that the greater violence of the action was owing to an increase of muscular force consequent on the improvement of the patient's health and strength, I opened the temporal artery with the desired result, and with the effect, at the same time, of restoring to a considerable extent the sight of the right eye. A second detraction of blood from the temporal artery produced no farther benefit to the sight, but diminished the force of the convulsion so much as to permit the acupuncture to be practised twice a-day, without harassing the patient beyond what she was able to bear. At the end of nine days from the renewal of the operation after her return from the country, in the four last of which the needles were inserted twice a-day, the jaw had recovered its natural extent of motion, and its action differed in no respect from that of health, except that some motions seemed at times to cost the patient an effort.

Some days after the jaw had come into this state, a fit of incessant yawning, over which the will had no control, occurred, which after continuing for about an hour, without a minute's intermission, ended in a severe convulsion of the jaw, yet no loss of motion followed.

The aphonia still continued—a single smart shock of electricity, passed from side to side through the larynx, caused her to scream for the first time for upwards of fifteen months—after which she spoke in her natural tone without difficulty.

The effect produced on her spirits by the restoration of her

voice, and of the complete power over the jaw, communicated itself to the nutritive functions; so that within a short time she assumed her natural appearance, that of a very robust ruddy young woman, presenting a striking contrast to the spectre-like figure she had been three months before.

The case unfortunately does not end here; yet a less detailed statement will serve to show the course it afterwards ran. Under more favourable circumstances there is strong reason to believe that the long period required for its successful issue might have been greatly abridged.

In the country she enjoyed this restored state of health till the beginning of winter. Towards the end of November she returned to Edinburgh with her general health little impaired, but with the voice again lost, and the motion of the jaw reduced within very narrow limits. Both effects had taken place suddenly from another exposure to cold.

As the menstrual secretion, the suppression of which dated from the commencement of her illness, had never appeared, it seemed proper to direct the first remedies towards its restoration. After the trial of several emmenagogues, this secretion, in a natural condition, at last appeared in the course of the month of January, under the use of the muriate of iron and ammonia. Up to the next period her health continued good, and she began to express a wish for the renewal of the acupuncture. But before any repetition of that remedy a menorrhagia set in, which became the signal for the invasion of a host of new maladies,—such as pain of the side, frequent difficulty of breathing, an incessant nervous cough harassing the patient for hours together, and on one occasion protracted for three days in spite of every remedy that could be thought of, till at last it yielded under the use of hydrocyanic acid. To these were often added severe pain in the region of the temporal and masseter muscles, and occasionally long-continued convulsions of the jaw and other spasmodic affections.

Every attempt to restrain the menorrhagia aggravated these complaints, so that she was quickly reduced to a state of health little better than that of the previous year. The motion of the jaw during this time was not entirely lost, but was very limited.

Leeches, blistering, and detraction of blood from the temporal artery, repeatedly resorted to when the pain in the muscles became unusually severe, produced no effect on the mobility of the jaw; and though these and the other remedies suggested by the varying state of the case often gave much temporary relief to many of the symptoms, yet they produced little permanent advantage. In summer she rallied a little; yet, under such a complication of maladies, it seemed unwarrantable to put her to the suffering necessary for the success of the

needles. She was therefore advised to try the effect of country air at home, the influence of which in time might restore the balance of the functions, when the lock-jaw, if it continued, could be removed by the needles as before.

In the country she was sometimes attacked with the spontaneous convulsion of the jaw, and was liable to frequent fits of the same incessant cough, her other complaints being at times aggravated, at times mitigated. She suffered most in winter. She was under no medical treatment, except that she lost blood from the arm once on account of the pain in the side, that she constantly took aperient medicine as she had been directed, and used the hydrocyanic acid against the cough, by which it was always kept down.

This last account applies to a period of three years and a half. In the spring of 1832, her health became materially improved; by degrees the jaw relaxed, and she recovered her voice. She began to pull down the jaw soon after she went to the country, when the spontaneous convulsion occurred, by introducing the steel busk of her stays across the mouth, a practice by which it was much shortened. This and many other plans of drawing down the jaw had often been suggested to her and those about her from the first, as the convulsion in every instance in which I had an opportunity of witnessing it quickly ceased when that was done; but such was the timidity or indifference of those about her, who were all along either strangers or distant relatives, that no effectual means were ever taken for that purpose during the whole time she suffered from it in Edinburgh.

In 1833 she came to Edinburgh and called on me to show herself,—she was then in perfect health,—a robust, ruddy-looking person, and had been free from all complaint for more than a year.

23 Nelson Street, Edinburgh,
12th *March* 1845.