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Clinical Lecture

ON

CASES THAT BONE-SETTERS CURE.

Delivered at St. Bartholomew's Hospital.

BY

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AFTER systematic lectures on the chief injuries of the bones and joints, it may be useful if I try to enforce by particular illustrations some of the general principles that I stated; and it may secure your attention if I use the form of speaking of the Cases that Bone-setters Cure. For few of you are likely to practise without having a bone-setter for an enemy; and if he can cure a case which you have failed to cure, his fortune may be made and yours marred.

I believe that, in the large majority of cases, bone-setters treat injuries of joints, of whatever kind, with wrenching and other movements of them. The proceeding was described to me lately by a gentleman who had a well marked fracture at the lower end of his radius. He had been to a distinguished bone-setter, who, with a glance at the wrist, said: "You ha' put out your wrist, that's what you ha' done"; then violently stretched and moved the joint; then said: "Now you go and hold that under my pump"; and, after the cold douche, took his fee. The fracture, being none the better for this treatment, was, at a second visit a few days later, again wrenched, pumped upon, and paid for. But, this time, much pain and swelling followed; and the patient had the wisdom to call himself a fool, and to go to his usual medical attendant; who sent him to me.

Cases of this kind are of frequent occurrence. To the bone-setter, every injured joint is "put out"; and the one method of cure is the wrench and the rough movements, by which it is said that the joint is "put in" again.

Now, it would be of little use to us to estimate, even if it were possible, the quantity of mischief done by treatment such as this. It is more important to know and consider that it sometimes does good; that, by the practice of it, bone-setters live and are held in repute by the ignorant of all classes everywhere; and that their repute is, for the most part, founded on their occasionally curing a case which some good surgeon has failed to cure. For here, as in all similar affairs, one success brings more renown than a hundred failures or mischiefs bring disgrace. The patients who are cured never cease to boast of their wisdom in acting contrary to authorised advice; but they who are damaged are ashamed of themselves, and hold their tongues.

What, then, are the cases that bone-setters cure with their practice of wrenching?

First, of course, they have a certain number of real fractures and dislocations which they reduce, and of old ankyloses which they loosen. Of these, I need say nothing; for I believe there is nothing in their practice in these cases which is not as well, or better, done by regular surgical rules.

Next, there is a rare accident which a wrench may cure, and which, if you are not on your guard, you may fail to make out; namely, the slipping of a tendon. I have known the tendon of a peroneus longus slip to the front of the outer malleolus; and an extensor tendon of a finger slip over the heads of the metacarpal bone and first phalanx; and here, from our museum, is the long tendon of a biceps slipped from its groove. Of these accidents, the first two may be made-out by feeling the displaced tendon and the gap where it should be; the third may be at least guessed-at by the signs which Mr. Soden has pointed out in his case, related in the *Medico-Chirurgical Transactions*; the slight forward prominence of the head of the humerus, its drawing up under the acromion, and the pain at the lower end of the biceps on stretching it. As to this displacement, however, I doubt whether it would be ever so certainly made-out as to be fairly reduced; the others, at the ankle and the finger, should be remedied by relaxing the slipped tendon as extremely as possible, and replacing it with lateral pressure and sudden stretching.

Some other tendons may slip, I believe, like these; the tendon of the popliteus appears very likely to do so; and I can hardly doubt that a bone-setter has occasionally done, unwittingly, a lucky trick, when, with wrenchings and twistings of a joint, he has made some dislodged tendon slip back to its place.

But there is a set of cases much more common than these, which may be cured with wrenching and rough movements; namely, the so-called internal derangements of joints. The knee-joint is by far the most frequent seat of this injury, whatever it is; but the like occurs in the lower jaw-joint; and I have known very similar signs of injury at the hip and elbow. The most marked sign is that, while the joint is being moved in some ordinary action, something is felt slipping or suddenly caught between the bones, and a great pain comes, and the joint is locked. It will move in one direction, not in the opposite one: just like a hinge with a stone in it (as a patient described it to me). The locking of the joint, which is, usually, at moderate flexion, is soon followed by effusion of fluid into it, and other signs of more or less acute inflammation of the synovial membrane; and, if nothing be done, these

last for some days, or even for some weeks, before, with subsidence of the inflammation, the joint gradually regains mobility.

Many of these symptoms are like those due to a loose piece of cartilage in a joint—a much rarer condition. But, with loose cartilages, joints are not, I think, often locked for any length of time; they are stopped with extreme pain when the cartilage gets between the bones, but it soon escapes and they go again. In some of the cases of what I am calling locked joint, at the knee or lower jaw, it is probable that one of the interarticular cartilages slips and is nipped between the bones. We have, in the museum, a cast from a knee in which it is certain that this happened. But in some cases it seems more likely that a fold of synovial membrane, or a portion of capsule, is caught and nipped. However we may explain the accident, it is one of those that may be cured by the bone-setters. Such movements as theirs are not, indeed, necessary; and none should be practised recklessly or without plan; but force may be requisite, and, if used knowingly, will certainly set a locked joint right again.

Sometimes a patient learns for himself how to unlock his joint, and can do it gently, first, in the case of the knee, bending and then with slight rotation slowly stretching it. But he may need more force than he can use for himself; and you may apply it better than a bone-setter can.

In the case of the knee, the "lock" usually takes place with the joint moderately bent and the leg rotated outwards. You must unlock it by extremely bending the joint, then rotating the leg inwards, and then suddenly and forcibly extending it. In the same manner, for any other joint that appears to slip and lock, you must observe the direction in which the patient can easily move it, and the direction in which movement is impossible or very painful; then you must move it, first, extremely in the former direction, and, secondly, forcibly in the latter. The manœuvre is sometimes extremely painful; and the force required for success may be greatly augmented by muscular resistance. In either case, the use of ether or chloroform may ease both the patient and yourself.

A fourth set of cases that may be cured with wrenching, or other forcible movements, includes those in which injured joints are held stiff, or nearly stiff, by involuntary muscular action. You may meet with such cases in patients of any age; but they are most frequent among the young. Sometimes after well treated fracture near a joint; sometimes after a sprain; sometimes when a joint has been hit hard—stiffness remains, which is due solely to muscular action; and this stiffness in some cases is constant, and in others ensues on slight attempts at motion.

Any joint, I believe, may be in this condition at any time after an injury. I have seen it at the elbow, shoulder, cervical spine, hip, knee, and ankle; in some instances a few hours after the injury, in some, several weeks. You may know this muscular kind of stiff joint by this, among other signs: that the stiffness is not a dead block, as if by meeting of displaced bones, nor has rigid resistance, but yields a little, as if with the "giving" of a firm elastic substance which instantly recoils. Besides, you may generally feel the muscles in action; not hard and vibrating as if with all their force, but firm, steady, and resisting. If, however, you have any doubt about the diagnosis, chloroform will settle it. As soon as the patient becomes quite insensible, the muscles relax, and the previously stiff joint becomes freely moveable.

Herein appears the best mode of cure. Bone-setters violently move the joints against the muscular resistance till the muscles are wearied and beaten, and you may do the same; but the proceeding is very painful, and often needs a painful repetition. A far better plan is to have the patient under chloroform, and move the joint quietly, and then to confine it with splints in a posture opposed to that in which it was stiff. After a few days, it may be moderately exercised, douched, and shampooed; but in the intervals of this treatment the joint should be confined with the splints, if it should appear to be becoming stiff again.

You may sometimes see another condition, very like this involuntary muscular rigidity of joints, in young children. If one of its limbs be hurt, a young child will sometimes hold the limb steadily in one position, and complain if it be moved. Thus, a child, whose thigh has been strained, will stand on the other leg and keep the hurt thigh lifted up, as if for extreme disease of the hip-joint; or, for similar hurts, will, for even many days, keep its arm close to its side, or its elbow-joint steadily bent.

Perhaps, some of these cases are the same as those I last spoke of; but in many of them the muscular fixing of the part has seemed to me not involuntary. It is more like a trick, or an instinct of fright, lest the part should be hurt again. Certainly, the muscles relax instantly in sleep, and not unfrequently when the attention is distracted from them.

I suppose that bone-setters would cure this state with their panaceal pulling; but, happily, they are allowed to have but little practice among children. Happily, I say, for children's joints are much more imperilled by violence than are those of older patients; and you cannot be too cautious in concluding, when a child holds a joint fixed, that there is really no disease or serious injury. All the evidence must be negative; and an oversight may be disastrous.

However, you need not use any kind of force in this kind of contraction in a child. If the part be only allowed a few days' rest, it will get well; unless, indeed, it be seriously damaged—in which case, you will have done well by avoiding all violence.

In another set of cases, there is no doubt of the voluntary character of the muscular rigidity of a joint. You saw lately a girl in Lawrence Ward who wilfully resisted all movements of a hip that had been only slightly hurt. If a bone-setter had wrenched her joint, it might have served her right, and the pain might have cured her temper. But she recovered just as well when she saw that she did not deceive us and was not pitied.

Now, among all these cases of muscular difficulty, there is a good harvest for bone-setters; and, without doubt, their remedy, rough as it is, is often real. Yours may be as real, with much less violence; and, with better diagnosis than they can ever make, you may do none of the harm that they often do.

But there is a yet larger class of cases which bone-setters sometimes succeed in curing very quickly; namely, ordinary sprains.

I cannot doubt that some recently sprained joints

may be quickly cured, freed from pain, and restored to useful power, by gradually increased violence of rubbing and moving. This method of treatment has many times been introduced into regular surgery; but it has never been generally adopted, or, I think, long practised by any one. I suspect that it sometimes does no good, and sometimes does harm enough to disgust an honest surgeon.

I believe that the best mode of applying this plan of treatment is, to begin by handling, rubbing, and pressing the sprained part and its neighbouring structures very gently. After doing this for fifteen or twenty minutes, the rubbing and pressing may be increased in hardness, and the joint may be more freely moved, especially in the direction opposite to that in which it was forced by the accident. Another quarter of an hour or more thus spent, is to be followed by rougher proceedings of the same kind, till even severe pressure and wide and violent movements can be borne without pain; and then, in an hour or so, the cure is deemed complete, or so nearly complete as to require only a slighter treatment of the same kind on the next day.

I cannot tell you in what kind or proportion of recent sprains you may employ this treatment; indeed, I cannot advise you to use it at all, unless by way of trial in very healthy men. For I do not doubt that it will sometimes do harm; and the greater quickness of cure which it may achieve is not worth a risk, while we can always employ such safe, and not slow, means as the combined rest and support of the sprained parts which are given by strapping or the starched or plaster-of-Paris bandage. In short, this rough-rubbing and hard-pulling treatment of recent sprains seems to me one of those dangerous remedies which, though I believe in their occasional utility, I would rather not employ till I can discriminate the cases in which they will do good from those in which they will do harm.

Such discrimination, difficult as it may be among recent sprains, is not very difficult among old ones; that is, among cases in which the ill effects of sprains remain long uncured. It is among these cases that bone-setters, and especially those who combine rubbing and shampooing with their "setting", gain their chief repute.

Among "old sprains", you will find a strange variety of cases—chronically inflamed joints, each probably bearing the marks of the constitutional disease or unsoundness of its possessor; and loose joints, and slipping, and creaking, and weak, and irritable joints, and many more. To all these, mere bone-setting does harm, or no good; and rubbing and shampooing are of little, if any, use; indeed, to a really inflamed joint they would generally be mischievous. But among "old sprains" are not a few cases in which a joint, after long treatment, remains or becomes habitually cold. It is generally stiffish and weak, sensitive, aching after movement, or in the evening or at night, sometimes swollen, puffy or œdematous, but not with an "œdema calidum." Whatever else it is, it is cold, or, at the most, not warmer than the healthy fellow-joint. Among these cold joints, bone-setters and rubbers gain, as I said, great repute; and all the more because they often get the cases after the patients have become tired and discontented with a rather over-careful surgery. Admirable as is the rule of treating injured joints with rest, such rest may be too long continued; and in every case in which it has done full good, it must, in due time, be left off. With rest too long maintained, a joint becomes or remains stiff and weak and over-sensitive, even though there be no morbid process in it; and this mischief is increased if the joint have been too long bandaged, and still more if it have been treated with the cold douche.

I need hardly say that it may be sometimes difficult to decide the time at which rest, after having been highly beneficial, may become injurious; or that the decision is always a matter of grave importance. On the one hand, you and the patient may be losing time through over-caution; on the other, the risk may be incurred, through rashness, of renewing inflammation in a damaged joint. I believe you will be safe, if you will take the temperature of the part for your guidance. If the part be always overwarm, keep it quiet; if it be generally cold, or cool, it needs and will bear exercise and freedom from restraint of bandages, with friction and passive movements, and other similar treatment of the reviving kind. And of this you may be the more sure when the cold integuments over the joint are dusky pink or purplish, or become so when the limb hangs down, and when there is little swelling, and when pain is much greater than is accounted for by any appearance of disease.

I do not know whether bone-setters make any discrimination among these cases; and I do not advise you to adopt their rough method in any case; for though they may, when successful, prove emphatically the utility of movements for old sprains, yet the same good may be more safely done with gentler means of the same kind. Exercise of the hurt part should be gradually increased, and always followed by long repose; and the frictions and shampooings should be gradually made harder and more rough, and the passive movements gradually extended. Always, the part, if itself cold, should be, by any means, kept warm; and always the patient's constitutional defects should be watched, and, if possible, amended; for very commonly the chief hindrance to the recovery of a sprain is not local, but some general wrong—gout, chronic rheumatism, or struma, or hysteria, as it is called.

An "hysterical joint" is, indeed, sometimes a rare opportunity for a victory for a bone-setter. Cold, weak, useless for want of power of will, intensely sensitive, subject to all the seeming caprices of a disorderly spinal cord and too vivid brain,—such a joint as this may be cured by the sheer audacity with which it is pulled about. If nothing in it but its portion of the nervous system is in fault, this may be sometimes cured through influence on the mind. And so not only bone-setters, but the workers with Mesmerism, and tractors, and oils, and distant or superficial electricity, can sometimes cure hysterical joints: for the patients love to be cured with a wonder; and the audacious confidence of all these conjurors is truly wonderful.

From all this, you may see that the cases that bone-setters may cure, though more by luck than by wit, are not a few. I think it very probable that those in which they do harm are still more numerous; but the lessons which you may learn from their practice are plain and useful.

Many more cases of injured joints than are commonly supposed to be thus curable, may

be successfully treated with rough movements—wrenching, pulling, and twisting. The cases that are thus curable I have endeavoured to point out to you. Be on the watch for them. But remember always that what may be treated violently may be treated more safely and as successfully with comparative gentleness; and that, in some cases, you may very advantageously use chloroform or ether. And remember, also, that no degree of violence, not even such movements or exercises as I have advised, can be generally safe in the treatment of injured joints, unless when directed with a skilful discernment of the appropriate cases.

Learn then to imitate what is good and avoid what is bad in the practice of bone-setters; and, if you would still further observe the rule, *Fas est ab hoste doceri*, which is in no calling wiser than in ours, learn next what you can from the practice of rubbers and plaisterers: for these also know many clever tricks; and, if they had but educated brains to guide their strong and pliant hands, they might be most skilful curers of bad joints and many other hindrances of locomotion.

CHOLERA IN PRISON.

By ROBERT CHRISTISON, M.D., F.R.S.E.,
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The following case of cholera, with the introductory observations, was sent for communication to the last meeting of the British Medical Association in August; but no opportunity occurred for communicating it. The manuscript was subsequently mislaid; but, being recovered, was thought deserving still of being published. Although some part of the objects of the paper cannot now be attained by it, there are obvious reasons why it should appear as originally drawn up. I shall only add, that a second fatal case occurred three months later in circumstances precisely similar. This case I have requested Mr. Thomson, the Surgeon of the Prison, to communicate also.—December 22nd, 1866.

In numerous observations which have lately appeared on malignant cholera in the medical journals and the London newspapers, and especially in recent reports issued by authority of Government, it seems to be taken as proved that this fearful disease is entirely of foreign origin, that it arises only by communication from the sick to the healthy, and that this property depends on transmission of germs existing in the discharges from the bowels. Accordingly, the practical inference follows, that, by a sufficiently stringent quarantine, the malady may be kept out of the British islands.

I apprehend, however, that these conclusions have been come to hastily, by looking at the questions involved in them in a one-sided way, and to the disregard of important facts, opposite in their bearing, which have been accurately ascertained in former epidemics of cholera. That the disease may be communicated from the sick to the healthy I am far from denying: I have myself seen cases which could not, as I thought, be reasonably referred to any other origin. But that the generality of cases of malignant cholera can be logically traced to the same origin, is a very doubtful proposition.

The question, I need not say, is one of great practical importance at the present time; and now is the time for deciding it. For it is mainly by studying with scrupulous exactitude the circumstances of the very first outbreak in localities at a considerable distance from any known seats of the disease, that we can arrive at a sufficient number of well-ascertained facts for ruling our conclusions.

It may be well to lay down beforehand the conditions for giving conclusiveness, either the one way or the other, to facts of the kind; which there is every reason now to fear will present themselves in ample number to competent observers. This is a precautionary measure, to which it appears to me the British Medical Association may, with great advantage, turn its attention at its present meeting. I cannot myself make the attempt, for want of adequate leisure; but it will be in much better hands, if the Association see cause for taking it up.

In the meantime I beg to present a single case, which, as far as a single case can go, supports powerfully the doctrine that malignant cholera may arise, not only without communication from a previous case, but likewise in apparent absence of all the other causes, exciting and predisposing too, which have been variously supposed to create or to favour cholera.

I have on several occasions, in periods when malignant cholera was not known to prevail anywhere in Great Britain, met with cases which were undistinguishable from that disease, in any other respect except that they recovered. In the following instance the identity with one of the worst forms of malignant cholera was complete, in as much as the sufferer died in twenty-three hours.

The person attacked was a man under middle age, a criminal lunatic, who had been for several years confined as such in the lunatic department of the General Prison at Perth. This is a prison of comparatively recent erection, for the custody of criminals from all the local prisons of Scotland, who are sentenced to long terms of imprisonment. The prisoners amount to nearly eight hundred. There is a special department, a separate building, for criminal lunatics of both sexes. The building now in use is a new one, which has been fitted up with every modern convenience commonly adopted in ordinary lunatic asylums, in so far as compatible with the sure custody of a class of lunatics most of whom are dangerous. The success of the managers and prison-officers has been very great; because for many years the health of every class of prisoners has been uncommonly good. On June 30th, I inspected the prison, and especially the lunatic department, as I do by order of the prison authorities every alternate month. I reported the whole prison on that occasion as being in an extraordinary state of health. Among nearly eight hundred prisoners, there were only two women and five men confined to bed, two of the latter for hernia humoralis merely. There was no tendency to diarrhœa or stomach ailments in any part of the prison; no case of diarrhœa had occurred among the lunatics. I may here anticipate dates so far as to dispose of this branch of the subject by also mentioning, that during a few days after the man's death, two cases of slight diarrhœa, and one of slight stomach complaint, did occur among the male lunatics, thirty-four in number; that these ailments were easily cured by simple means; and that no similar case had happened when I last heard of the condition of the prisoners, on August 1st, three weeks after the man's death.

He was a tall, erect, strong, active, obliging man, always very healthy physically. My attention happened to be drawn to him particularly during my visit on June 30th, when he had every appearance of