THE USE AND ABUSE OF MANIPULATIVE SURGERY*

BY

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A few weeks ago an elderly lady told me that according to her information manipulative surgery was "brute force and bloody ignorance." I told her that this was the best definition I had heard. Perhaps it is significant that in spite of this she entrusted herself to me for manipulation of her spine, showing that some of the more intelligent of the public are able to distinguish between manipulative surgery and the proper use of manipulation in surgery.

I have no wish to quibble about the meaning of a word or a phrase. I have used the term "manipulative surgery" many times, and once I so far forgot myself as to write a little book with that title. But it is a term to which I have the strongest objection, because it implies or suggests that the use of manipulation is something different and apart from ordinary surgical procedure, and that it is a peculiar method or system of treatment which is no particular concern of the ordinary surgeon or, for that matter, of any surgeon. This is not true; but we may as well admit that not so long ago it was true, or almost true. Manipulation was practised empirically by bone-setters in this country for centuries before its possibilities were realized by the medical profession. In fact, it is little more than twenty years since the conspicuous success of one bone-setter in particular forced the medical profession to take manipulative surgery seriously. Personally, I have never been afraid or ashamed to admit that my own enlightenment came from Herbert Barker—not directly, for I never saw him at work, but from the simple fact that he cured outright a patient of mine whom I had treated unsuccessfully by orthodox methods over a long period.

Many years ago I received a letter from an intelligent middle-aged woman, who wrote as follows:

"Dear Mr. Bankart,

"You may remember that two years ago I consulted you for pain in my feet due to flat-foot. For two years I had your treatment and I did everything that you told me to do. I wore the special boots that you had made for me, and the wedges, pads, and supports. I had the massage and I did the exercises which you prescribed for me. But I got no better, and I began to fear that I should be crippled for life. Then some friends of mine persuaded me to consult Mr. Barker the bone-setter. He, with his wonderful hands, put the bones of my feet back into place, and now, I am thankful to say, I am cured. I have no pain in my feet, I can walk seven miles with ease and comfort, and I feel that a new lease of life has been granted to me."

No doubt your first comment on this case will be that I must have treated this patient very badly, and I entirely agree. But at least I will say that I treated her conscientiously and according to the accepted principles of all the leading orthopaedic surgeons of the day. Yet I had failed, and my patient had gone off to a bone-setter, who had cured her. Perhaps your next comment will be that the universal diagnosis of "a small bone out of place" is so manifestly false that you are sceptical of cures which are alleged to have been brought about by "putting small bones back into place." But you must understand that "a small bone out of place" is not a diagnosis, but a pretext. The bone-setter must find a reason or an excuse for manipulating a joint, and I must confess that I find it difficult not to take off my hat to

the man who first thought of "a small bone out of place." Hard things have been said about the medical profession for its tardy recognition of manipulative surgery. But if bone-setters had wished to keep their work to themselves they could hardly have done better than choose a name which is misleading—for whatever else they do they do not set bones—and an explanation of their results which is demonstrably untrue.

Foot Strain

In the case of my patient I had no doubt that she was telling the truth, and that, whatever the explanation, she had been cured of her complaint. I asked myself first: What did he do to her, or, for that matter, what could any man do to a foot with his hands alone? The answer was that he could do nothing except move it. How, then, could one man's movement or manipulation differ from that of another, for we had often manipulated feet, but without such dramatic results? The answer was that he could only move it with more force or in a different direction, or both.

So here was the explanation, and surely it is simple enough. It is a story that I have told so many times that I have not the face to weary you with it again in detail. It is enough to repeat that people do not suffer from flat-foot, but from inability to flatten their feet. The great majority of civilized people have acquired some restriction of the natural mobility of their feet, so that they cannot flatten without meeting with the resistance of the soft parts. When the flattening foot meets with this resistance it is strained, and the condition is painful. On the other hand, the completely flat foot is painless. The medical profession and the public have been obsessed with the idea of supporting the arch of the foot. In theory this is ridiculous, for the foot was meant to be an active, supple member, and not a rigid thing like a block of wood; and in practice it has proved a miserable failure. The bone-setter, on the other hand, smashed down the arch of the foot, or, to put it less crudely, he restored its mobility, so that it could flatten without resistance and therefore without pain, and he cured his patients. Most appropriately my experience has led me to mention first the commonest use of manipulation in surgery. For foot strain (not flat-foot, if you please) is one of the commonest ailments of the human body. It may be postural or traumatic in origin. It can be cured by manipulation and in no other way. See to it that you cure it, or others will cure it for you, as they have done in the past.

Now listen to a very different story. Some years ago a doctor brought his son to me with an obviously tuberculous elbow. He had taken him first to a bone-setter (not Barker), who had violently manipulated the joint, and it had flared. The doctor felt and looked a fool; but there it was. No doubt your first comment on this case will be that the bone-setter ought never to have manipulated this joint, and he knows that as well as you do, now. But how was he to know that this was a tuberculous joint, for he had had no medical or surgical training? Then, you will say, he ought never to manipulate any joint, or, in other words, he ought not to exist. Perhaps you are right; but what about my lady with the supposed flat-foot, and the countless other cases that have been cured by bone-setters after having failed to get relief elsewhere? Do not think that I am talking only of the past. I still hear of orthopaedic surgeons of repute who treat so-called flat-foot with arch supports, who do not recognize sacro-iliac strain, the commonest cause of pain in the back, and who profess to be familiar with manipulative surgery but who seldom practise it. You cannot have it both ways. It is no use saying that the bone-setter ought not to practise because he is not medically qualified unless you, who are medically qualified, are prepared to under-

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take not merely an occasional manipulation or two, but the whole of the manipulative work that has hitherto been performed by bone-setters. How many of you who are attached to large hospitals have any organized arrangements for dealing with the large number of cases which require manipulation in ordinary orthopaedic practice?

Spinal Conditions Requiring Manipulation

After the foot, the joints of the pelvis and spine are those which most often call for manipulation in the ordinary course of treatment. I will not inflict the Americanism "low back pain" upon you. Low back pain is about as intelligent a diagnosis as belly-ache or pain in the chest.

Sacro-iliac strain is the commonest cause of persistent pain in the lower part of the back. It is a definite clinical entity, characterized by pain in the sacro-iliac joint, tenderness on pressure over the posterior superior spine of the ilium, a sense of insecurity or weakness, and, in most cases, a normal *x*-ray picture. Pain may be referred to the outer side or front of the thigh, but never down the sciatic nerve in an uncomplicated case of sacro-iliac strain. Sometimes there is chronic arthritis of this joint associated with a similar condition of the joints of the lumbar spine. Occasionally there is tuberculous disease of the sacro-iliac joint, but this is practically never seen before there is visible evidence of bone destruction in the *x*-ray picture. So that with the simple precaution of a routine *x*-ray examination one can diagnose and treat a case of sacro-iliac strain without hesitation. We believe that sacro-iliac strain is a chronic strain or sprain with periarticular adhesions such as may occur in any other joint. Often there is a definite history of injury, and the strain is common after childbirth, but sometimes it is of gradual onset and due to faulty posture. Over 90 per cent. of the cases can be cured by manipulation under an anaesthetic followed by massage and exercises. Those which do not respond to manipulation can be cured outright by arthrodesis of the sacro-iliac joint.

Chronic lumbar back strain is perhaps the next most common cause of persistent pain in the back. It begins acutely with a sharp stabbing pain during some effort or awkward movement. It is due to rupture of some of the deeper fibres of the erector spinae muscle on one or other side. When the condition becomes chronic there is a point of local tenderness over the erector spinae, spasm of the muscle resulting in limitation of movement, and often a considerable degree of neurosis. Practically all these cases can be cured by manipulation, unless there is an impending claim for compensation or a long-standing traumatic neurasthenia.

Spinal arthritis—that is, osteo-arthritis of the lumbosacral and intervertebral joints of the lumbar spine, with or without sciatica—is the third condition of the spine which in suitable cases may be treated by manipulation. We do not pretend to perform a miracle on the permanent osseous changes of advanced chronic arthritis here or in any other part of the body. But we do believe that a great deal of the pain of which these patients complain is due to periarticular fibrosis rather than to actual changes in the joints, and that, if the spine can be made supple again, much of the pain will disappear. Forcible manipulation followed by vigorous massage and exercises is successful in about 50 per cent. of these cases. It is irrelevant to add here that, when all other means fail, excision of the corresponding intervertebral joints is an almost certain cure for intractable sciatica.

The Knee-joint

Many people, I think, would say that I should have placed the knee-joint first, or at least second, in the list

of those that may require manipulation. But the knee-joint, perhaps, is the one joint which is manipulated more often than it ought to be. Nowhere is the difference between manipulative surgery and the proper use of manipulation in surgery more evident. The practitioner of manipulative surgery alone must manipulate at all costs or confess himself beaten, for he has no alternative methods of treatment. The properly equipped orthopaedic surgeon, on the other hand, has at his disposal all the resources of medicine and surgery, and not the least of these is the use of manipulation in suitable cases.

For many years bone-setters have claimed that they can cure cases of displaced semilunar cartilages by manipulation. It is not true; but here again we have learnt something from the bone-setter. Chronic knee-sprain can be cured by manipulation. In such cases the injury has stopped short of that gross injury which results in a torn cartilage, and has produced instead a sprain of the peripheral attachment of the cartilage. When this condition becomes chronic the patient complains of frequent stabbing pain on the inner side of the knee, occasional attacks of synovitis, and weakness of the joint. He may say that the knee gives way, or slips, or "goes out," but there is never any mechanical obstruction to movement. These cases are common enough; the symptoms, of course, are due to fibrosis or "adhesions" at the periphery of the cartilage, and they can be cured by manipulation; and inasmuch as they are usually diagnosed as "slipped cartilage" by bone-setters and the public, they are largely responsible for the popular belief that displaced semilunar cartilages also can be cured by manipulation.

Semilunar Cartilage Displacement

We now know that a displaced semilunar cartilage is always a torn cartilage, and that when once a considerable part of it is detached and loose the only place it can go to and not give rise to immediate trouble is the centre of the joint. The freeing of a "locked knee" by manipulation and the further displacement of the detached cartilage into the intercondylar notch may be followed in some cases by a considerable period of immunity. But it is my belief that such a cartilage always gives rise to trouble sooner or later, and that is not what I call a cure.

In the aggregate the surgeons here must have operated upon thousands of semilunar cartilages. In my experience a large proportion of the patients give a history of having put the knee out previously, it may be years before; "but," they tell one confidently, "that was put right by a bone-setter." At operation one finds the typical tear of the cartilage which could not possibly have been "cured" by any manipulation, although, as I have already said, the manipulation may have been followed by a considerable period of immunity from symptoms. But that is not the whole story. We see also many cases of chronic synovitis of the knee passing on to osteo-arthritis in patients approaching middle age, who admit that many years ago they "put a cartilage out, but that was put right by a bone-setter." These are neglected cartilage injuries, or, shall I say, cases in which manipulation has been misapplied. I feel strongly that a semilunar cartilage once torn and displaced in the knee-joint of a reasonably young and healthy individual should be removed forthwith, for if it is left it will ultimately destroy the joint.

You will hardly expect or wish me to recount all the uses and abuses of manipulation in and out of surgery. I think I have said enough to show that manipulative surgery is and must be an integral part of orthopaedic surgery. That it has not always been so I am the first to admit; but we are concerned with the present and the future, and not with the past. Within the last twenty years, for the first time in history, manipulative surgery has been placed

upon a sound scientific basis, and we know far more about it now than any bone-setter has ever known. The most striking thing about it is its extreme simplicity. There is no complicated pathology attached to manipulative surgery. The greater part of it is concerned with the simple inflammatory reaction of living tissues to injury—the first thing that we learn when we begin to study medicine—which, in various parts of the body, leads to fibrosis or adhesions in ligaments or muscles, limiting movements of joints, and causing pain when movements are attempted. Manipulation consists merely in moving a joint forcibly through its full range of movement. I would emphasize the point that manipulation in general requires the use of great force, and that the art of manipulation consists of applying great force effectively *and safely*. Tweaking joints is no part of manipulative surgery.

Frankly, I do not think that the bone-setter abused manipulation so much as some people would like to make out. The genuine British bone-setter, now almost a figure of the past, was for the most part an honest fellow, who did work which nobody else would do, and believed in his work and was largely justified in his belief by the results he obtained. Being entirely without medical or surgical training he could not make an exact diagnosis, and it is not surprising that occasionally he met with disaster. But that, I am charitable enough to believe, was his misfortune rather than his fault.

Osteopathy and Chiropractic

I should like to stop now; but no account of the abuse of manipulative surgery would be complete without some mention of those American stunts which go by the names of osteopathy and chiropractic. It is little more than sixty years since an obscure American physician called Still announced that it had been revealed to him by God that practically all diseases are due to slight displacements of the spine, which produce pressure on the blood vessels in the intervertebral foramina, and so cause disease in various parts of the body. He devised a series of manipulations which had for their avowed object the replacement or "adjustment" of these so-called spinal lesions; by these manipulations, it was claimed, the pressure on the blood vessels was relieved, and the diseases resulting therefrom were cured. He called this treatment osteopathy, and osteopathy it is.

Do not let anyone deceive you by explaining that this is ancient history, and that the "modern osteopath"—whatever that may mean—is a more enlightened fellow who has become, in fact, a "manipulative surgeon." This is not true. It is true that the osteopath has shifted his ground again and again as one after another of his claims has been shown to be absolutely devoid of any scientific foundation. Pressure on the blood vessels in the intervertebral foramina gave way to "congestion," and then to "interference with the autonomic nervous system," and latterly an attempt has been made to identify the imaginary "osteopathic lesion" with the chronic back strain which we know so well. In treatment, too, the osteopath has shifted or extended his ground in that he may employ local treatment in addition to, but not as a substitute for, the spinal "adjustments" which are the essential basis of osteopathic treatment. I need hardly remind you of the impudent attempt which was made a year ago to establish by law a virtual monopoly of manipulative surgery for osteopaths in this country. Osteopathy has nothing whatever to do with manipulative surgery. It is an American "stunt" based on the unsupported assertion that practically all diseases are due to imaginary displacements of the spine. It has been investigated up to the hilt, and it has been found wanting.

About twenty years after Still another obscure American called Palmer, without any medical qualifications,

announced that he had made the "discovery" that 95 per cent. of all diseases are due, not to pressure on the blood vessels at all, but to pressure on the nerves of the intervertebral foramina, brought about by the same imaginary displacements or "lesions" of the spine. He employed manipulations similar to those of Still, but he called his system of treatment chiropractic. This rival venture proved even more successful than its prototype, judging from the fact that there are far more chiropractors than osteopaths in the United States and Canada. There is little to choose between them, but it is the osteopaths particularly, with their more pretentious claims, who have tried to establish themselves in this country. It is up to orthopaedic surgeons to see that these confidence tricks are exposed, and to ensure that the proper use of manipulation in surgery is taught and practised in all our teaching hospitals.

TREATMENT OF CHRONIC RHEUMATISM*

BY

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I shall assume that there are three clinical groups included in the term "chronic rheumatism"—namely, rheumatoid arthritis, osteo-arthritis, and fibrositis. I shall also assume that the term does not include acute rheumatic fever, or arthritis associated with specific infections such as gonorrhoea, or associated with gout, organic nervous diseases, or with certain other obvious factors such as haemophilia. I shall not further define the subject of our discussion, and shall proceed to review the various methods of treatment which are available.

Presence of a Septic Focus

All cases should be carefully examined for a septic focus, and when such is found it should receive the appropriate treatment. The opinion of the dental surgeon should be followed, but indiscriminate extraction of teeth, which is usually contrary to his advice, should be discouraged. These steps constitute the routine procedure in the treatment of most chronic conditions. But I do not agree with those who consider there is sufficient evidence for the view that bacterial action is the invariable cause of chronic rheumatism, and, in the absence of anything more definite, will accept as the cause some organism which is isolated from the stools and possesses slightly irregular sugar reactions.

Vaccines.—Those who hold that vaccine therapy is the correct treatment for chronic sepsis are justified in employing it when a definite focus is identified. But there is no justification for the routine use of vaccines in chronic rheumatism. We know that sepsis will disturb a diabetic regime, but it is not suggested that vaccines are a treatment for diabetes. No evidence that is satisfactory, or even nearly satisfactory, has been produced in support of the use of vaccines in chronic rheumatism within the definition of our discussion. It is particularly illogical to employ in chronic rheumatism irregular methods of vaccine therapy which have no support in general use.

Drugs and Diet

Analgesics such as aspirin may relieve aching, especially in fibrositis, though failure is frequent. Many an osteo-arthritic has faith in iodine and in "Chelsea pensioner" for easing pain. Gold is the only drug for which a specific effect can be claimed, and its use is

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