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TREATMENT OF SPRAINS OF THE BACK BY MANIPULATION.

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There is a tendency amongst the medical profession to look with great disfavour on any mention of the word “manipulation.” To many it is like a red rag to a bull, and conjures up a picture of the most blatant quackery and unqualified roguery.

This is a pity when such excellent results can be obtained in certain classes of case by very simple procedures. It is our failure to cure these cases which drives patients to the osteopath or unqualified manipulator who undoubtedly does cure them, and on his success he is apt to base his fantastic claim to deal with many other different conditions.

Manipulative surgery is, of course, practised by the orthopaedic surgeon for a great variety of joint and other conditions, but the class of case which can always be benefited and generally cured often dramatically by manipulation is an injury of the muscles of the back, popularly labelled “lumbago.” This is a very common condition and one which any of us should be able to deal with unaided.

One of the chief reasons that have been alleged against manipulation is that the manipulator cannot give on every occasion a satisfactory pathological explanation of the condition he is treating nor say exactly what he has done to cure it.

This is a fallacious objection as any treatment which proves successful must surely be adopted even if we may not be able to explain exactly how it works.

On going into the history of these cases it will generally be found that the pain and stiffness came on either extremely suddenly or more gradually after some sudden jerky movement under some condition of strain. Such movements as digging in the garden, lifting a heavy box, swinging a side of meat, diving from a height, slipping on a mat or swinging a golf club or getting up quickly from a deep chair are all associated by patients with the onset of their trouble. All these movements involve more or less sudden combined bending and twisting movements which probably catch some of the muscle fibres of the erector spinae unawares so that they become if not actually caught up on some bony point at any rate out of alignment so that any further attempted movement causes pain.
condition is therefore in the nature of an injury, and it appears that it might be compared to a link of a bicycle chain slipping off a cog.

It occurs most commonly in the lower dorsal and lumbar region and it is invariably called "lumbago." This is a suitable enough name in so far as it means a pain in the back but most unfortunate in its suggestion of inflammation, rheumatism and popular pills.

On examination of the patient the pain may be referred across both sides of the spine and more usually one side is worse than the other. There may or may not be a definitely tender spot. There is always some, often very marked, limitation of flexion and extension of the spine. The patient cannot bend down to his toes or if he gets down cannot spring up. In the more acute cases he may be unable to get up at all and may lie curled up in bed in agony at the slightest attempted movement.

The usual treatment of these cases in the past has been lengthy, varied and most unsatisfactory. Some have had heat, some cold applied; radiant heat, electricity, massage, liniments, salts, salicylates and aspirin are popular. Many have been put on strict diets denying them all the good things of life in the way of food and drink. Some have had all their teeth removed, others have suffered copious colon lavage or various spa treatments.

The cases described below were all treated by manipulation only and in no case was an anaesthetic given. Before doing any manipulation it is obviously essential to exclude, by X-rays if necessary, any bone disease of the vertebrae or pelvis.

The procedure in each case was to go into the history carefully, then examine the patient stripped, and then carry out the series of routine manipulations.

The routine manipulations are as follows:

1. Patient lies at ease on his right side, arms forward, elbows in front of the face and knees well drawn up. The operator stands behind the patient and places his hands firmly on the left shoulder and left ilium of the patient. The patient is instructed to let himself go quite slack, and this is essential, otherwise the manipulations cannot be carried out.

   The operator then sharply and forcibly pushes the shoulder forwards and pulls the pelvis backwards, then reverses the process by pushing the pelvis forwards and pulling the shoulder backwards. This is repeated several times in both directions.

2. The patient turns over on to the left side and the same process is repeated on that side.

3. The patient lies on his face. The operator places one hand under the patient's thighs just above the knees and raises the pelvis up and down from the bed, at the same time making counter-pressure downwards with the other hand on the lumbar spine.
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(4) The patient is stood to attention and is told to reach his leg sideways as far as he can with the tips of his fingers on each side in turn. He is assisted to reach a little further by the operator gently jerking his head and the opposite shoulder in the required direction.

(5) The patient lies on the ground on his back, hands down just away from the side. One end of a roller towel is placed under the lumbar region. The operator stands across the patient at the same level and places the other end of the roller towel round his own neck. The operator takes hold of the sides of the towel low down and slowly and deliberately lifts the patient off the ground as high as he will go, then gently lowers him again. This is repeated six to ten times. It is essential that the patient should let himself go absolutely slack and not resist or attempt to help the movement.

The patient now almost invariably jumps up with surprising agility and says that he feels much better and looser in every way and often practically cured.

Examples: (1) Private ——. Diagnosed acute lumbago, sudden onset lifting a bucket of water two days previously. Lying curled up in
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Third manipulation.

Fourth manipulation.

Fifth manipulation.
bed, complains of severe pain, unable to get out of bed by himself and cannot stand up straight. Routine manipulations were carried out. He got straight up from the floor and said he was much better, he could move freely in all directions and stand quite straight. Manipulation repeated the next day when only a slight stiffness remained. Discharged to duty on the fourth day; no recurrence.

(2) Mr. —. Said he was subject to lumbago and had had an acute attack three weeks before while playing tennis in the act of serving. Was very depressed as he was threatened by his doctor with a low diet and nothing to drink. Rather dubiously said he would try manipulation. Routine treatment followed by immediate relief of pain and free movements. Beyond slight stiffness he had no further trouble. Manipulations were repeated on the third day and he was playing tennis again within a week.

(3) Lance-Corporal —. Sent into hospital from an out-station as chronic lumbago of one month's duration. It had come on suddenly as he was swinging a side of meat in the Quartermaster's Stores. Walked slowly with a stoop. Extremely stiff and unable to bend down or stand up straight. X-ray showed no boney injury. Routine manipulations were carried out gently and followed by immediate improvement. Manipulation repeated more vigorously next day with further improvement. After the third manipulation he was cured and returned to duty.

(4) Captain —. Complained of chronic lumbago of five months' duration. He was unable to play polo. Did not remember a definite injury but the lumbago came on after playing polo. He had pain across the lumbar spine. After routine manipulation he felt looser and was told to return if it had done him any good. Returned after four days, said he was much better and asked for more manipulation, proposing to re-start polo at once.

(5) Private —. Diving from a high dive came down a bit awkwardly and as he hit the water got a sudden severe pain across the lumbar spine. Had difficulty in getting out of the water and could neither bend down nor stand up properly; walked with difficulty, bent up. Admitted to hospital next day and manipulated with immediate great improvement and relief of pain. Manipulation repeated on two successive days and discharged recovered the following day.

(6) Private —. Employed in the stores. Was lifting heavy boxes in the morning and in the afternoon had sharp pain across lumbar region. Walked stiffly and could not bend. Manipulated with immediate improvement. Manipulation repeated on two successive days when he was cured.

(7) Serjeant —. Had had some stiffness of the back for three weeks. The day before admission suddenly had acute pain across the lumbar
region on getting up from a deep chair out in camp. Was unable to stand up and had to be carried to bed. Sent into hospital on a stretcher, and it required three people to get him off the stretcher on to a mattress on the floor, as he could not stand on his feet at all. Routine manipulations were carried out at the end of which he got up without assistance, dressed himself, including putting on his socks and walked off to his quarters. He said it was miraculous and he would not have believed it possible; the pain was entirely relieved and only some stiffness remained on certain movements. After the third treatment, he was completely recovered and required no further treatment.

(8) Miss. A nurse, stepped into a small hole in the ground playing hockey and thought she had torn a muscle in her back. Very stiff and unable to bend down or straighten. Manipulation was followed by immediate great improvement and she could at once bend down and touch the floor. Improvement was maintained and further treatment not required.

(9) Serjeant-Major. A fine, soldierly figure. Complained of pain and stiffness of the lumbar spine of gradual onset. He found it a nuisance as he could not bend, turn round quickly, or stand to attention properly. Manipulation was followed by immediate relief. When seen a few days later he said it had been unnecessary to return for more treatment as he had been completely cured and was now perfectly fit.

(10) Lieutenant. First felt pain and stiffness across the upper lumbar spine on getting out of bed about three weeks before. Could not touch his toes and had had to stop playing polo. There was immediate improvement after manipulation. Returned next day saying he was much better and asking for more. It was repeated; he played polo that afternoon and had no further trouble.

(11) Mrs. Sent into hospital on a stretcher as acute lumbago. A big heavy woman with great pain and stiffness. No history of injury. Cured by two manipulations and discharged from hospital the third day. One month later there was no recurrence and she was perfectly well.

(12) Commander. Complained of lumbago of eight months duration. While grouse shooting in Scotland, he slipped on a stone and had sudden pain in the lumbar region which had been there ever since. During routine manipulations said he felt something give way and the pain was immediately relieved. On inquiry several times in the next six months he said he was very much better, had had no more pain but was still occasionally stiff.

There is no doubt that all these patients were perfectly genuine and the pain and disability complained of actually existed. One occasionally comes across malingerers who complain of similar symptoms which are well known to everyone and may be hard to disprove. In such cases as
there is no actual disability they either deliberately resist or will not admit any improvement from manipulation and this in itself tends to confirm the suspicions of them.

No originality is claimed for this method of treatment; but the cases are recorded to draw attention to a simple and effective form of treatment for a common condition which seems to be but little known or practised at the present time.

MOUNTAIN STRETCHER.

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The apparatus described has been in use at the Natal National Park for three years.

During this time seven major accidents, including four compound fractures of the leg, and multiple injuries, together with minor mishaps, have been handled on the apparatus and mainly without professional directions. Most of these accidents occurred at a height of 5,000 feet above the Hostel, and at an average distance of twelve to fourteen miles from it. Part of the return journey has usually been made by a rough track, but even when this could be followed, bearers using the stretcher on its carriage prefer to leave the track and take short cuts down the steepest hillsides. This is practicable so long as the terrain is not too steep to stand on without support, and is preferred by the patients as the roughness of the country makes little difference to them.

DESCRIPTION.

The contrivance consists of a stretcher and a carriage. The former is a modification of that used on the Rand Mines. The latter is modelled on the bush machila used in Central Africa, and I had already introduced a modification of it for carrying disabled lepers over the steep mountain tracks of Zululand.

The details are shown in the photograph and scale diagrams.

The Stretcher is made of 3/8 inch philippine mahogany laid on the cross and screwed to runners of ash, 2 1/4 by 1 inches. These are shod with copper. The leather straps are 1 1/2 inches wide. Their position is most important and is indicated on diagram A. The shoulder straps are padded and threaded through the head rail. A long perineal strap passed through the same rail is recommended on the Mines, but we have not used ours and have not shown it on either diagram or photograph.

Operation.—Remove the stretcher from the frame.

To get extension in leg fractures use the body weight by raising the foot end of the stretcher and tying the foot or ankle to the foot rail.