

TWO MAN TECHNIQUE

At the inaugural meeting of this Institute, held in 1954, the Chairman stressed the necessity of preserving and developing all techniques considered to be genuine osteopathy. In my view the two-man technique is genuine and original osteopathy and worthy of preservation. The two men most concerned in the origin of the technique as we know it today are H.H. Fryette and H.V. Hoover. It is less a matter of importance as to who was the first, but that it was adopted and is now practised by many of the leading osteopathic technicians throughout the profession. Nevertheless, there has been great danger of the technique becoming lost. I was particularly fortunate to have received separate instruction in this method from Drs Fryette and Chester Morris, and I was deeply impressed by the ease with which both operators accomplished their corrections. It was only after close questioning that I discovered they were paying greater attention to the minor movements and minor details of co-operation rather than to the gross movements as seen from the onlooker's point of view.

I can only hope by means of this paper and the demonstration to follow that these points can be made as clear to you as they were made to me. Previous attempts to explain and demonstrate the two-man technique at our post-graduate courses and conventions have not proved generally successful, but this may have been due to a lack of sufficient analysis in the presentation. However, the problem of survival of this particular technique, as I see it, presents two main difficulties. It calls for the close co-operation of two operators, and the work is laborious; yet it is only essential for one operator to know the principles upon which the technique is based, and any lay person such as wife, secretary or nurse, can be instructed in a few minutes to act as assistant. If strict attention is paid to the details of the part each one should play in the combined technique it is only a matter of time plus the experience of repetition to form a co-ordinated working team.

The heaviest work in performing this technique falls on the "pelvic operator" in the act of lifting the patient's knees from the initial position.

Should the patient offer a slight resistance the weight is increased tenfold and there is undoubtedly a risk of severe strain to the operator's back if he is not already fixed in position. In order to avoid this danger the assistant operator is instructed to elevate and support the patient's knees until the pelvic operator can effectively grasp them without flexing his trunk.

Most specific work in osteopathic practice comes under the heading of fixed point technique. That is to say correction of the vertebra in lesion is accomplished by reversal of the mechanics of production round a point which is fixed by gravital stress, or physiological or mechanical locking. In contrast with this, two-man technique is based on a double contact designed mainly to produce simultaneous rotation of the two vertebrae involved, in opposite directions. Side bending is introduced by the position in which the patient is placed plus the direction of the traction or torsion under the control of the operators. The basic principle of this technique is such that it may be applied to any type of inter-vertebral joint strain found in the lumbar area where there is malposition or immobility, giving rise to limitation of rotation and Side bending. The corrective leverages employed consist almost entirely of rotation and counter-rotation.

Irrespective of the type of lesion diagnosed, the patient is placed in the "Sims position" on that side towards which the spinous process of the vertebra in lesion is pointing: e.g., in the case of an extension-rotation-side bending lesion to the right of the 4th on the 5th lumbar, the spinous process will be pointing to the left and the patient is placed in the left side "Sims position". In other words, the initial position is such that the transverse process of the lesioned vertebra which is posterior is uppermost, whether it is rotated posterior-inferior or posterior-superior.

If it can be assumed, then, that lesion of the 4th and 5th lumbar as described above, is present, the patient is placed on the left side and the left arm is allowed to drop over the back edge of the table. The knees are flexed and the pelvis is moved backwards to the edge of the table. The right arm is rested in a convenient position towards the top right-hand corner of the table.

Having thus completed the diagnosis and prepared the patient for

correction, it is essential to decide on the choice of position of the number one man from which the operation is controlled. The designation of No. 1 and No. 2 man is not entirely satisfactory and I prefer the terms, "Spine or Trunk Operator", and "Pelvic Operator". According to Fryette the trunk operator should control the correction, while Chester Morris, on the other hand, preferred that the pelvic operator should assume control. It is of interest, perhaps, to quote briefly from my original notes recorded at the end of a day's work with Fryette. "He says that the trunk man controls the correction and he makes sure he does this part, mainly, I think, because the knee/pelvic part is heavy going and he even admits this. He seems to control the lesion by placing the pisiform side of his hand over the transverse process and pressing over the lumbar from below upwards, while holding the extended arm and wrist. Whereas Chester Morris prefers the fingers curled round the table side of the spinous processes while his forearm fits snugly round the waist line." In retrospect I think that the hold used by Chester Morris would provide a more rigid and localised tension-locking for the lumbar corrections, but Fryette's method is probably better for corrections of the pelvis.

With all these details confirmed the pelvic operator takes up his position behind the patient and opposite the pelvis. He then places his proximal knee firmly on the table close behind the flexed knees of the patient. From his position on the opposite side of the table the trunk operator raises the patient's knees about 10 degrees from the table, at which level the extended hand and arm of the pelvic operator is at the best mechanical advantage to grip and sustain the weight of the lower limbs. The trunk operator now grips the patient's right wrist with his right hand and, leaning over the patient, approximates his chest and shoulder to the postero-lateral side of the patient's thorax. The immobilisation of the upper part of the patient's body is thus secured by the operator's own weight, which may be usefully reinforced by carrying the patient's right arm downwards and outwards into full extension.

At this stage the pelvic operator's left thumb is braced over the spinous process of the 5th lumbar vertebra and the trunk operator curls the 2nd and 3rd fingers of his left hand round the spinous process of the 4th lumbar. Both operators then slightly yield or exaggerate their respective levers

until an optimum tension is engaged at the point of lesion. The double movements of rotation and counter-rotation are then made simultaneously at a given signal from the controlling operator, which consist of a sharp tug given under the spinous process of the 4th lumbar vertebra with a rapid thrust delivered in a downwards direction over the spinous process of the 5th lumbar.

This technique is of value in the treatment of both the flexion-side bending-rotation, and the extension-rotation-sidebending types of lesion, and may be successfully applied to the whole of the lumbar area. In the flexion-sidebending-rotation type the "pisiform transverse process" contact is to be preferred, in which case the patient's knee flexion is increased in order that a rotation may be effected in conjunction with the pelvis, that is nearer the apex of the convex lumbar curve. With the extension-rotation-sidebending type, however, the curled fingers round the spinous process will give a better control, and here the knee/pelvic rotation is given a slightly more extended position. If properly executed these controls will take care of any Sidebending which may be present in the lesion.

PELVIC TECHNIQUE

At this point I would like to digress for a moment to discuss one or two factors with reference to the mechanics of the pelvis. It has often been said that "you cannot have it both ways" but this two-man technique is not without interest in that equal results can be obtained whether we think in terms of movement of the ilium round a central axis at the second sacral segment, or of rotation round the upper or lower poles of the sacro-iliac articulation with all the resultant changes in the axes of movement. It will be an advantage, therefore, to avoid all complicated or controversial theories of pelvic mechanics for the time being. At least we can agree that if a lesion is produced within the pelvic ring under the conditions of weightbearing, it will not long remain an individual lesion, and that compensation will rapidly take place within the pelvic ring as well as above and below it.

In the attempt to preserve the equilibrium, the sacrum and/or the

unaffected ilium will begin to accommodate to the primary lesion strain, which means that if one in nominate moves in lesion the other will move in the opposite direction with a resultant torsional strain of the sacrum, e.g., the up-anterior or posterior lesion of the ilium may also be described as an anterior sacrum on the same side. Conversely, the up-posterior or anterior lesion of the ilium can be alternatively named a posterior sacrum on that side. Both types of lesion on either side will respond to this type of treatment. Whatever our individual theories might be concerning the mechanics of lesion production in this area there is no doubt that the two-man technique is particularly suitable for correction in that both aspects of the sacro-iliac lesion are placed under control at one and the same time.

If it can be assumed that we have a lesion of the pelvis in which compensation has taken place, i.e. an up-anterior or posterior ilium on the left, and an up-posterior or anterior ilium on the right, the patient is placed on his left side in the "Sims position" with a view to the correction of the left ilio-sacral articulation. The trunk operator then takes up his position as for the lumbar correction except that his proximal hand (left) is placed over the lumbo-sacral junction in a manner that will bring maximum effort to bear on the left sacral articulation. The fingers are locked round the 5th lumbar and the 1st sacral spinous processes and the heel of the hand exerts pressure over the erector spinae mass covering the uppermost transverse processes. The chest contact and the right hand traction are then brought into play and the rotation is carried throughout the entire spine into the sacro-iliac articulation on the table side.

The position of the pelvic operator is also similar to that of the lumbar correction but in this case his flexed right knee is placed as close as possible to the patient's pelvis, and his left thumb is directed over, and slightly above the posterior-spine of the patient's left ilium. Both operators now "tease for tension" as it were until maximum stress is brought to bear on the articulation in lesion, and the correction is made by a slight exaggeration of these movements in combination with a sharp thrust from the pelvic operator's thumb.

In the treatment of the opposite side the patient's position is reversed and the "Sims position" is again adopted. The technique is similar except for

three minor but important changes; (1) The patient's knees are flexed nearer to the patient's abdomen. (2) The thrust, as applied by the pelvic operator, is delivered over the posterior inferior spine of the right ilium or the lower part of the posterior superior spine. (3) The trunk operator must apply a firm pressure over the base of the sacrum in order to tip the apex of the sacrum in a posterior direction thus meeting halfway the forward and downward movement of the ilium as initiated by the pelvic operator.

It must be remembered that "A manipulation must consist of a force acting against a resistance in a certain direction at a given speed, and as this resistance constantly varies, so must all factors concerned in the correction be capable of infinite variation". Although this statement is true of all specific technique it applies more particularly to the two-man technique, and especially in the treatment of the pelvis. Therefore, it is essential to make sure that all leverages are carefully co-ordinated up to the point of maximum tension before the final adjustment is attempted.

In my opinion this "rotary two-man technique" is most useful in the treatment of lesions involving pregnancy, and in all manipulations of the low back and pelvis given under anaesthesia. It is also the technique par excellence for the ballet dancer, the acrobat and all the hypermobile types of back. It may equally well be applied to the chronic fibrotic lesion, and the short, bulky muscular type of patient.

It now only remains to consider, very briefly, the "Two-man Tug Technique". As the title suggests this is a method which is based on the principle of a straight pull without any element of rotation. In preparing the patient for correction the ordinary side-lying position is adopted and the lesioned ilium is placed uppermost from the table. The arms are flexed at the elbows and rested close to the anterior thorax: this serves to provide the trunk operator with an improved hold and avoids the risk of injury to the patient.

This technique is the method of choice in the treatment of that most difficult lesion the primary up-posterior, or anterior in nominate. Clinically we know that the subjective symptomatology produced by this type of lesion is located both laterally and below the posterior superior

spine, and that this is the area where the ligamentous pathology is most evident. It is for these reasons that the tension should be centred here before the tug is applied.

Therefore assuming a lesion of the right ilium the patient is placed in the left lying position. Standing at the back of the patient the trunk man places his flexed left arm over the patient's flexed arms, and approximates the lateral side of his body to the patient's chest. The operator is now in a favourable position to control, or hold in fixation, the patient's right innominate and this can be done most conveniently by placing the left hand over the iliac crest with the palm over the anterior superior spine, while the palmar surface of the right hand is fitted firmly and snugly over and below the posterior superior spine.

At this stage in the preparation the "Tug Operator" assumes his position on the opposite side of the table and takes up the patient's right leg. The knee is flexed with the right hand supporting the tibial head, and the left hand supporting the ankle. The leg is then gently flexed until the trunk operator signals that muscular and ligamentous tension is accumulating under, his right hand. At this point, and without any change of angle, the leg is fully extended, and from this position is slowly abducted and adducted until the trunk operator again signals a reaction under his right hand, which, for the want of anything better may be described as a "gapping strain" at the articulation.

The successful completion of the "Tug Technique" demands a degree of balanced co-operation which is even more important than in the rotatory method. In the majority of cases it is necessary to induce relaxation in the patient by means of deep regular breathing, or by gently moving the extended leg, and when sufficient relaxation has been gained the leg is then externally rotated and placed under mild, but sustained and increasing traction. The correction is finally made by a slight but sharp tug which is applied *without releasing* the traction. The trunk operator is not required to thrust but merely to guide along the plane of the articulation, although he should be aware of movement in the sacro-iliac joint.

I have been at pains to present this two-man technique in some detail

because I feel that the benefits of the work of Fryette and Hoover in this field should not be lost to the profession. Although it is difficult to describe and demands care in application, the technique is capable of gaining results where other methods have failed. If I may end on a personal note it is worth recalling that on the occasion of Dr Fryette's visit to this Institute last year he remarked that, having spent a lifetime in teaching osteopathy, he considered the two-man technique to be his major contribution to the growth and development of osteopathy, and that he would be content to be remembered for his pioneer work in the discovery of this technique alone.