Some Early Activities Following Abdominal Surgery — from the Patient's Point of View.

By a PHYSIOTHERAPIST

The purpose of this short article is to relate some personal experiences in the hope that it may help patients and physiotherapists with similar problems.

The incision in this case was a lower abdominal median one, sutured by means of four stitches and fourteen metal clips. The clips were removed on the fifth post-operative day and the stitches on the eighth day, on which the patient was also discharged. The presence or absence of the clips and stitches made no difference to the activities mentioned.

The author was somewhat surprised to feel that the worst pain was intra-abdominal and did not arise from the scar. As a physiotherapist, I might have been too intent upon the visible trauma and expected deep tissues to be less painful. The pain seems to arise from three sources: the injured tissues, felt as a deep continuous ache rather like a bad period pain in this case; the handled and disrupted hollow muscular organs, especially the bowels, which had a more intermittent and cramp-like quality, and the wound, which burned faintly except when the abdominal muscles were contracted, when it became a severe, sharp, superficial pain. On the day of the operation the pain is constant and severe and fills one's whole consciousness unless controlled by drugs. These may be injected every three or four hours and are effective enough to allow sleep.

Patients who require coughing and/or exercises on the operation day should be treated about half an hour after a pain-killing injection (such as Pethedine). It would be best to ask the sister first thing in the morning when the last injection was given, so that treatment may be timed as suggested after the next one.

Any activity which produces an abdominal contraction increases the intra-abdominal pressure and the deep pain, but in addition there is the severe and sudden pain from the wound. It is wise, therefore, to avoid any unnecessary abdominal contraction, particularly on the operation day and first post-operative day.

Activities

Bridging is, of course, essential to facilitate moving around in bed. It is relatively painless—certainly far more comfortable than attempting to sit up—and may be started on the operation day. A high lift is no more painful than a low one. This activity is used not only for shifting up, down and sideways and for bedpans but for turning on to the side unaided and to help in a variety of nursing-procedures such as bed-making, washing, changing the dressing, etc.

Turning on to the side unaided could be done as follows, starting in supine and rolling to the left: Bridge to lift the pelvis a little way and move it to the right side of the bed, lower and bring the feet in line with the pelvis one by one. Bring the shoulders in line by pushing backwards on the head and elbows. Lift the pelvis again and turn it about a quarter of the way to the left; lower. The legs will now easily fall to the left if allowed, taking the pelvis, spine and thorax with them. The patient can move the head and shoulders easily at the same time. This brings one about three-quarters of the way. Now first get the shoulder through by pressing the uppermost hand firmly on the mattress in front of the face and lifting the bottom shoulder, while drawing it backwards. Then push the feet on to the bed strongly, especially the uppermost one, with the knees still bent, and lift the pelvis while twisting it up to pull the underneath buttock backwards until you are completely on the side. The last bit is the most painful.

To return to supine, start turning the head and shoulders, using the uppermost hand again to raise the shoulders a bit. Then help roll the legs upright using a hand on the side of the thigh; lift the pelvis and twist to get to the supine position.

It is not necessary, and probably not desirable, to lie in the prone position, although this may be done with comfort once the clips have been moved. The procedure then continues, with a straightening of the legs, until one is quite prone. The side-lying position with knees bent up may be used to clear the chest, and is the most comfortable position from which to sit up.

Sitting Up

This is done from side-lying as for an acutely painful back, but with the emphasis on using neck, arm, back and leg rather than abdominal muscles. For those who would like the detail, one bends the knees until the feet extend beyond the side of the bed but the thighs are still supported. Then push strongly on the upper hand and lower elbow, lifting the head, and raise the body sideways. Lean over *forwards* rather than backwards, almost into a prone position if necessary, to take the strain off the abdominals. The lower legs swing easily over the side at the same time. Meanwhile the hands are brought to either side and in front of the patient, who leans forwards slightly and takes a lot of the bodyweight on the straight arms. To stand one slides forwards until the feet are firmly on the floor. To straighten up, it helps to push with the hands on the front of the thighs for the first part, then breathe in a controlled way for the last part. It is possible to stand and walk erect on the first post-op. day. Walking is slow and tends to be shuffling because jarring is painful, but it looks normal though still slow with a little practice.

Sitting up in a chair is allowed on the first post-op. day as soon as the drip is out. It seems to me unnecessarily cruel to expect a patient to sit out of bed before then, unless there is an abnormal risk of complications due to bedrest. The chair should have a high back to support the head, and arms on which to push or pull to aid changing of position. Sitting well back with the back and head supported is very comfortable, especially with the feet supported on a high stool. The feet should be lowered to the floor and plantar and dorsiflexion movements done for a few minutes every 15 minutes or so in order to improve circulation in the legs. Sitting forwards with the feet on the floor relieves the pressure on the sacrum, and this position with a pillow in place may be used for coughing (see below). Lifting up on the arms and shifting the position of the buttocks from time to time also relieves pressure and keeps the patient from sitting too still.

Coughing

Any jarring of the bed or sudden pressure on the abdomen must be avoided as it is very painful. We found that the best way to cough, i.e. with the least pain was to place a pillow across the abdomen and bend the knees right up with the patient's hands round the outside of the knees so that a diffuse but strong pressure could be exerted on the abdomen over the wound against the diaphragmatic area. The patient then breathes in and coughs while at the same time increasing the pressure on the abdomen as much as possible by pulling on the knees. If the patient can manage an abdominal contraction, it helps to tighten the muscles just before coughing. In this way, it was possible to cough loudly and effectively in relative comfort. The patient may be supine or in side-lying, half lying, half side-lying or sitting. This means coughing may be done without the presence of the physiotherapist to support the abdomen. If the patient requires more localised pressure, the hands may be placed on the pillow instead of around the knees. Remember that sneezing is more violent and painful than coughing, so advise your hay-fever sufferers of this too—and don't tell any funny stories until your patient has the pillow in position!

Abdominal Exercises

It is cruel to expect a patient to be able to sit forwards from the pillows from a half-lying position until the fourth post-operative day. Even then it is quite painful though possible. The author was fortunate to be nursed in an electric bed, the head of which could be raised or lowered by the patient at the touch of a button. Patients who have difficulty changing from lying to half-lying could be given a monkeypole and rope or a rope and handle could be attached to the foot of the bed. The author thinks that abdominal exercises should aim at gently stressing the scar in order that fibrous tissues may be laid down along the lines of stress. It also facilitates walking erect and it gives confidence if one is able to "pull in one's tummy". It helps deep breathing (expiratory) and coughing control. The patient cannot be expected to exert enough effort to *strengthen* the muscles in the early stages, and the pain and effort seems unnecessary when it is considered that the abdominals are inhibited by pain and are not truly weak.

Gentle contractions attempting to pull in the abdomen with expiration in crook or half-lying may be practised from the first post-operative day. This is progressed until pelvic tilting can be done. With previous training this is possible on the same day. It is reasonably painless. Within the first few days the patient should be able to do pelvic tilting standing with the back against a wall. Again previous training helps.

In the author's opinion these are the only formal abdominal exercises required until the stitches are removed and the patient is discharged. If *strengthening* is required, the pelvic tilting exercise can easily be progressed until both feet can be lifted from the bed (lower abdominals) or the shoulders can be raised slightly (upper abdominals). The latter is more difficult and painful. It is easier to start by using one arm stretching forwards and raising one shoulder at a time (oblique abdominals). These exercises can be further progressed if necessary after discharge.

The author thinks that it is more important to teach the patient the activities mentioned above than to do deep breathing and foot exercises. They may be done *in addition* to the activities, but more general activities are not only more useful to the patient and nursing staff, but they activate the respiration and circulation much more effectively. Lying still in *one position* is probably more conducive to deep venous thrombosis and chest complications than just keeping the legs still.

The post-operative progression of activities depends, of course, on the age of the patient, previous pathology, previous physical condition (and this includes obesity), position and length of the incision, the presence (if any) of complications and the mental outlook of the patient.

The Mental Attitude of the Patient

This is very important. Indeed, we as physiotherapists are usually called in to assist with the type of patient who "won't move". Progression must therefore be determined for each patient individually, and no set pattern followed. Guidelines of days on which activities may be started are necessary for students and inexperienced physiotherapists, but only experience teaches one how to progress each patient.

The physiotherapist can help the patient's mental outlook a great deal—an aspect too often forgotten and neglected. Patients are afraid of moving. Fear of the wound bursting may be very real. Fear of pain may be linked with this. They do not understand the strength of the sutures, nor the need for activity and safety of those taught to them. A little time taken in explanation is essential and optimism is very welcome. One does tend to worry so! Incidentally, when sending "get well" cards try to find one with a cheerful picture. Those depicting a patient with a green face lying in bed wide-eyed are not pleasant to view from one's bed, however funny the writing or punch-line may be.

The author wondered whether it would have been better to know nothing about medical matters at all ("Ignorance is bliss") or whether knowledge of procedures, possible complications, etc., would be more worrying. ("A little knowledge is a dangerous thing.") I found that it was better to fear the known than the unknown. At least one is afraid of only the really bad things and not of every little procedure, as some patients are. Understanding does eliminate fear and confidence in the medical and nursing care takes care of the physical aspect. Patients who do not have loving and prayerful family and friends at hand are particularly in need of help. That piece of rare steak smuggled in at visiting hours is very welcome!

The author is not particularly stoic and rather inclined to worry about illness, so I hope that what helped me will help others also.