PROTRUDED DISK SCIATICA IN THE SERVICES AND ITS MANAGEMENT.

BY

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INTRODUCTION.

This paper is intended for those doctors who care for the Serviceman. In it is offered a workable scheme for dealing with a common complaint, the refractory sciatic pain due to a protruded lumbar intervertebral disk.

A plea may here be made for the adjective "protruded," for it describes, more accurately than most, the usual state of affairs.

It is not proposed to deal exhaustively with this now familiar condition. Much has been written on its etiology, pathology and diagnosis, and the reader who is inadequately conversant with these should refer to papers such as those of Mixter and Barr (1934), Mixter and Ayer (1935) and O'Connell (1943) or to the book on the subject by Bradford and Spurling (1941).

It is therefore assumed that the case has been diagnosed correctly as a protruded disk, and that the other causes of sciatica, especially spinal tuberculosis or new growth and disorders in the pelvis, have been excluded. Special attention should be paid to a rectal (or vaginal) pelvic examination (which should never be omitted) and to the radiological appearance of the lumbosacral region of the spine. A "coned down" lateral view centred on the fifth lumbar vertebra may be useful. The two commonly-involved intervertebral disks, those between the fourth and fifth lumbar vertebrae, and between the fifth lumbar and the first sacral are then seen, and any abnormality, notably loss of joint space, is noted. It should be remembered, however, that the lumbosacral interval is normally a little narrower than those above.
Intelligent and sympathetic, but firm, management of these cases is of great importance, and the object of this paper is to stimulate interest in this aspect of the disease. Incomplete appreciation of the problem may lead to much that is uneconomical both to the patient and the Service alike.

(1) Assessment of the Pain.—Accurate assessment must first be made of the patient’s pain and, in a Serviceman, this may be most difficult. It is, however, of the utmost importance.

Any hysterical or deliberate exaggeration must be noted; for “pension neurosis,” the “pre-release syndrome” and allied states of the mind are unfortunately present to some extent in a great majority of Service cases. A knowledge therefore of the patient’s background, his adaptability to Service life and his social and personal history in general is essential in this connexion.

This is a good reason for the early transfer of cases to a special centre (if there is one). Here the same medical officers will have the advantage of getting to know their patients during the period of conservative treatment. Both the physician, and the surgeon who may later have to operate, will see the case at intervals.

(2) Conservative Treatment.—It is my practice to put all these cases to strict bed rest for one month right away; and the rest must be strict.

In the absence of a definite history of the pain being worse at rest (a not very uncommon symptom, and a useful one, for it usually means that the pain as described is quite genuine), any man found up and about after the initial and a subsequent warning to rest strictly, can reasonably be considered to be suffering relatively mild pain.

The genuine case will readily avail himself of enforced rest if it relieves or controls his pain.

To one who has had experience of both civilian and military patients together in one ward, the difference regarding pain was noticeable. The latter were harder to assess. (Reference to this difference between the two classes of patients will be made again later in connexion with the results of operation.)

Clearly then, views on sciatica must be modified a little when dealing with Service personnel.

For the pain, analgesics, short of morphine if possible, may be necessary. Often aspirin is sufficient, but full doses may be required six- or even four-hourly. For severe cases combination with codeine is useful. The latter may be given by injection of the phosphate (¼ to one grain in a solution of one grain in fifteen minims). The psychological effect of injections may be marked in a patient who considers that repeated aspirin is insufficient. Occasional morphine may, however, be necessary.

Physical methods of treatment should be confined to those that are appreciated. Hot-water bottles and radiant heat, although usually comforting, may aggravate the pain.

Patients produce many bizarre methods of relieving their pain, and these should be encouraged. Opportunity should be given, to those who desire it, of sleeping at night in a comfortable chair, when in the acute stage of the pain.
Occasionally a patient prefers a hard bed with fracture boards, or even the floor! Sympathy must also be extended to those who are obliged at night to walk round the ward at intervals to effect some relief.

The night is usually a bad time for the man with acute sciatica, and he must not be forgotten at that time. Many an apparently trivial point may mean much to the true sufferer. Consult the patient, therefore, regarding these aspects of his treatment.

It is worth while to treat any diarrhoea promptly, and irritating purges should be avoided. These seem liable to aggravate the pain, possibly by the pelvic inflammation they produce, and by the effort of repeated defecation.

Any scoliosis or hip-flexion deformities should be corrected when the acute pain has passed off. This can generally be done by exercises, but manipulation under anaesthesia may be necessary. Cases with severe deformities, however, are usually candidates for operation.

It must be remembered that these deformities are natural methods of relieving the tension on the spinal nerve affected, and the desirability of correcting them must be carefully considered, and the correct stage at which to do it.

Epidural saline injections have not been found satisfactory; possibly due to a poor technique, but in connexion with this and various other auxiliary remedies advocated, the words of Walshe are notable: “It must be admitted that their frequent failure is often to be attributed to their use as a substitute for the only really essential element in the treatment, namely an adequate period of rest in bed.”

The writer of this paper, however, believes that surgical operation is another essential element in the treatment, when it is indicated, but that does not diminish the wisdom of those words which continue: “Rest is monotonous, lacks the impressiveness of electro-mechano and ‘ray’ therapy . . . yet an adequate period of rest is not seldom far more economical in the long run than changing over from one method of active treatment to another.”

The cause of any obvious hysterical exaggeration of symptoms should if possible be ascertained, but it is likely to be difficult to remedy satisfactorily if it consists of a desire to leave the Service or to obtain a pension. Inquiry into domestic matters may be revealing, and, if this is so, the help of the welfare officer of the man’s unit should be invoked.

After a month in bed the milder cases, especially those whose first attack it is (these are the commonest) should have cleared up sufficiently for them to return to duty after a week of graduated exercises. These may commence in bed after the pain has subsided. Those with a little residual disability may require temporary downgrading.

Attention to the limp habit is important at this stage, for later it will be less easy to correct.

Those whose pain really persists after one month or returns when they get up require complete reassessment. This should be concerned specially with any change in physical signs. Improved signs without change in the pain will arouse the suspicion that all is not quite genuine.

Those who, it is considered, are relatively unrelieved are ordered a further
month in bed. Complete immobilization in a plaster of Paris bed may even be desirable, but it is not proposed to lay down definite rules for this procedure since the individual case must be considered.

If after this there is still little or no improvement, those cases not suitable for operation should in my opinion be invalided. These must regrettably include those who are exaggerating a minor but definite disability. All these patients will otherwise almost certainly remain the despair of the Regimental or M.I. Room Medical Officer, and a liability to the Service.

By invaliding a patient, one is not necessarily denying him the chance of operation by an expert later, should he then really require it. A note that he may or will require further treatment should, therefore, be entered in the Medical Board Proceedings.

With Indian or Colonial troops circumstances are usually different, and these circumstances and relevant factors must be carefully considered before the man is sent away to his village.

These invalided patients who are still suffering some disability may benefit from immobilization in a plaster of Paris jacket, applied in the position of maximum comfort and strong enough to last with reasonable care for two or three months.

In less severe cases a man may even be returned to his unit in a jacket for sedentary duties in category “C” for three months. These jackets, needless to say, must be well fitted and comfortable.

Others who have improved further with two months’ rest will require graduated exercises and may return to duty in a suitable category.

It should be borne in mind here that pain and physical signs becoming worse over this two-month period should arouse suspicion of a neoplasm (of the cauda equina or neighbouring structures). The spine and pelvis should be reviewed, and a low lumbar puncture, spinal manometry and examination of the cerebrospinal fluid done.

(3) Operation.—This final and radical method of treatment must now be considered. It is a good working rule not to operate on Servicemen unless it is considered absolutely necessary. Modification of this rule may be made in the less severe case whose symptoms are beyond suspicion.

Observance of the rule will save many useless operations, and not a few that are damaging alike to the patient and to the art of surgery.

The operation requires peculiar skill if it is to be done with the minimum of damage to normal parts and render recurrence unlikely. It is rightly the province of the expert or, in his absence, those trained by him.

Inexperienced and indiscriminate operators can do harm to cases which might otherwise cure themselves eventually with less discomfort and disability. The surgeon’s interest in these cases should never be such that they are regarded only as candidates for the knife. (It should surely be unnecessary to feel obliged to say this, even though the often humdrum work of the Army general surgeon is well appreciated.)

(It may be emphasized that there is no attempt here to make a mystery of this operation. The convictions of the writer are merely expressed.)
The alternatives confronting the surgeon are less likely to be "invaliding or operation," than "invaliding or operation followed by invaliding"; for the proportion of cases that return to duty is not satisfactory, and it is a shrewd man who can predict before operation which they will be.

It must be realized that this major operation is in itself a good excuse for complaints of pain and disability afterwards. These are not easy for the fair-minded surgeon to ignore. This is particularly true, in the writer's experience of Indian and African troops. The former seem very liable to post-operative hysterical conditions. The pain may, however, be quite genuine.

Better results have been obtained in civilians than Service cases. How much longer this will be so these days remains to be seen.

(4) Indications for Operation.—What then are the indications for the excision of a protruded lumbar intervertebral disk in a Serviceman?

O'Connell (1946) has summed the matter up well as regards patients in general, and his useful paper should be read by all those interested.

His emphasis is on severe pain, severe neurological signs and severe tension signs.

When these symptoms and signs are of lesser severity, but nevertheless causing a certain amount of disablement, fine judgment is required in assessing the suitability for operation. For the reasons already mentioned this judgment must be particularly acute in Service cases.

Definite indications therefore are:

(a) Indisputably severe or disabling pain prolonged for, or recurring over a period of at least two months, during which time strict bed rest has been observed. (O'Connell says three months, but in Service cases a decision should be made earlier if possible.)

Cases with previous attacks will naturally have a stronger claim to operation than those whose first attack it is.

(b) Severe neurological signs, such as marked involvement of the cauda equina, or great weakness in one or both limbs, notably such as to cause foot-drop. Indications from these alone are uncommon.

(c) Severe tension signs: These include severe limitation of straight leg raising, combined usually with marked limitation of spinal movement. Co-existing, there may be marked scoliosis and hip-flexion deformity.

These signs should be of at least two months' duration, impossible to correct by other means and preferably a combination of two of the factors above. In practice (a) and (c) combined are the common criteria for operation.

For those on whom operation for any reason seems undesirable, but who require treatment, manipulation may be tried. This should be gentle, obtaining full spinal movement gradually and flexing the extended legs individually at the hip. The results are not always satisfactory. Clumsy and rough manipulation should be avoided as it may increase the size of an existing disk protrusion and exacerbate the symptoms.
In conclusion the emphasis must be again on the genuine patient and the conservative surgeon. It may be said that much in this paper is physicians’ talk. If so, it is all to the good, for it may then be realized that sciatica requires more the outlook of the enlightened, modern physician than that of the surgeon. Too many cases now go direct to the surgeon.

It is hoped that the extent of the subject has been appreciated; for this paper has been concerned with but the management of the condition. In it there is much to interest the “specialist in sciatica,” and even if his results are often disappointing, there is much that can be done or tried for these rather unfortunate patients.

The eagerness with which cases are transferred to a special centre, and the “bit of nuisance” that this type of case is often considered to be are noticeable. This paper is intended to stimulate more interest in and appreciation of the problem.

The subject is not too difficult if one really knows one’s patient, as, after all, every good doctor should.

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REFERENCES.