ORTHOSPORTS

QUESTION FOR PHYSIOTHERAPISTS

QUESTION | I HAVE A 50 YEAR OLD LADY WHO HAD ROTATOR CUFF SURGERY 5 MONTHS AGO AND HAD TO WEAR A SLING FOR 2 MONTHS. SHE STILL HAS STIFFNESS IN HER SHOULDER, BUT THIS IS NOT THE REAL PROBLEM. TRYING TO MOBILISE HER SHOULDER AND SPEED UP RECOVERY SHE "PULLED HER BACK" CAUSING DISC BULGING AT L4/L5 LEVEL. SHE EXPERIENCES LOTS OF PAIN AND PRESSURE ON THE SCIATIC NERVE TOO – SHE IS TOO SORE IF I TRY TO MOBILISE HER BACK. SHE THINKS IT IS MUSCLE IMBALANCE THAT "BENT" HER SPINE – WHAT KIND OF EXERCISE CAN SHE DO APART FROM STRETCHES?

ANSWER | Acute low back pain is commonly encountered in primary care practice but the specific cause often cannot be identified. This ailment has a benign course in 90 percent of patients.
The specific anatomic cause of back pain is often impossible to define and only a small percentage of patients have an identifiable underlying cause. A complete history and clinical examination can identify those patients who have serious underlying pathology.

The etiology of most spinal pain remains obscure and in most cases unknown, which, as a result of the complexity of its pathogenesis, remains a poorly understood chain of events.

Initially imaging investigations are rarely necessary. They have a low yield, and the presence of changes have equivocal clinical significance anyway. Twenty five percent of asymptomatic patients aged below 60 show disc herniations on MRI. In the over 60 year asymptomatic population this number is increased to 33%.

Fewer than 2 percent of patients have disc herniation.

From the limited history available it sounds like this patient may have developed a "posterior joint syndrome" (facet joint or sacro-iliac joint strain or a myofascial low back syndrome. More detail would be required to confirm this diagnosis. There is evidence that symptoms alone (radicular pain distribution) are not good predictors of the level of sciatica like pain. Absent reflexes or loss of strength would point to radicular compromise.

If the pain is coming from the disc (in this case it would be likely to be caused by an annular tear), she would usually respond to an extension exercise programme (McKenzie) once the initial flare has settled. "Centralisation" of her leg symptoms would confirm that the cause of the pain was related to the disc and that the treatment is successful. Her present acute symptoms are probably caused by muscle spasm / basal hyperactivity.

Most back injury occurs as a result of trivial movements due to functional instability rather than frank trauma. Indeed she may well be partially correct when she says that muscle imbalance "bent" her back.

Initially patients in this situation should be treated with adequate analgesia (regular rather than p.r.n.), anti-inflammatory medication anti-inflammatory modalities and activity modification as tolerated. Once the mechanical inflammation and muscle spasm have settled a better functional assessment can be made (when the patient is pain free) and specific rehabilitation started.

Functional stability appears to be a paramount necessity for efficient movement and less mechanical stress on pain-sensitive structures (Morris). Generally patients benefit from postural training and specific exercises to improve motor control of both the inner unit (TA, multifidus, pelvic floor with breathing exercises -core stabilizers-) and the outer unit.

A general fitness programme is also helpful: the simplest is a progressive walking programme. It is important that patiens maintain the highest level of physical activity that their symptoms allow from the very beginning. Walking in the house for five minutes every hour is feasible in most cases.

Patients need regular review of their symptoms. Developing neurological signs (loss of reflexes, loss of power) would be a signal of nerve root compression and may then require imaging studies. MRI in this case is the investigation of choice.

Surgical decompression (discectomy and rhyzolysis) of a disc herniation is only indicated when symptoms persist at an unacceptable level or fail to improve past a certain level over the following 2 to 3 months. The long term prognosis is similar with surgical or non surgical management but referral of patients with radicular or other neurological symptoms is always recommended.

Recommended reading

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- Albert HB, Kent P, Hansen JK, Soegaard H, Pain distribution in patients with sciatica from a single level disc herniation. *7th Interdisciplinary World Congress on Low Back & Pelvic Pain.* Los Angeles, USA, 9-12 Nov 2010

Dr Mel Cusi