Degenerative lumbar spine disease

Background

Degenerative lumbar spine disease (DLD) is a condition of the spine that can affect people of all ages, with or without neurological compromise. Imaging evidence of DLD is common in patients over the age of 70. However, in those without symptoms, it is rare. Symptoms, such as sharp pain, numbness, and tingling, are typical in lumbar spinal disease. In most cases, DLD is due to a herniated central lumbar disc that can press on a nerve root and cause pain, numbness, and tingling.

Diagnosis of degenerative lumbar spine disease

The primary symptom of DLD is axial back pain, with or without radicular symptoms. Imaging techniques such as MRI and CT scans can diagnose DLD. The diagnosis is confirmed by showing nerve root compression in the lumbar spine. MRI scans are more effective than CT scans in diagnosing DLD, as they can show nerve root compression and other causes of pain.

Management of degenerative lumbar spine disease

Management of DLD requires a multi-disciplinary approach comprising of, at the least, neurosurgeons/spinal surgeons, a neuro-radiologist, pain specialists, and physiotherapists. It is important to treat the problem with the most effective treatment for each patient. Although patients with DLD represent the biggest group of patients seen in a general neurological clinic, a smaller proportion will need surgery.

In patients presenting with acute or chronic low back pain, without neurological compression or spinal instability, conservative measures are likely to settle the pain in the majority. Such measures include weight reduction, structured exercise programmes, analgesia, and psychological management. In patients with chronic pain (more than one year), epidural injections, transcutaneous electrical nerve stimulation (TENS), and physical and psychological rehabilitation programmes may be of additional benefit. The role of surgery in such patients remains controversial. Spinal fusion may benefit selected patients. When instability (degenerative spondylolisthesis) complicates back pain, spinal fusion may achieve good pain control. Percutaneous spinal instrumentation systems now available, allow minimally invasive surgery with more rapid recovery and a shorter hospital stay.
In patients with DLSD and radicular pain, conservative measures are usually sufficient to improve the symptom in six to eight weeks. If severe pain persists beyond this time, or if a motor neurological deficit, such as a foot drop, is present, serious consideration should be given to surgery. The aim of surgery is to decompress the neural elements and the most common operations performed are lumbar laminectomy and lumbar microdiscectomy. The recent development of endoscopic microdiscectomy technique allows day-case local anaesthetic surgery with the additional benefit of excellent cosmetic results. Spinal cord stimulation remains an effective treatment in patients with severe pain especially if pain persists despite decompressive surgery.

**Prognosis of degenerative lumbar spine disease**

The prognosis of patients with DLSD depends on the underlying diagnosis, delivery of prompt treatment and psycho-social-economic factors. Well motivated patients with a good social support network are more likely to recover well and resume work. Despite all the treatment available, some 10 percent of patients become chronically disabled, especially with back pain. In others, conservative and surgical measures are effective in improving the symptoms. Spinal dural abduction and radicular pain respond well to surgery with up to 90 percent pain relief. When motor weakness is present or in patients with cauda equina syndrome, the timing of surgery is crucial in determining any neurological recovery with the best results seen in patients operated within 48 hours of presentation. The prognosis for recovery of sensory deficits such as numbness and paraesthesia is less predictable.

For further information about our services please contact our GP Liaison Team on +44 (0)20 7460 5973.