

Discogenic back pain

This means pain that emanates from the disc. When a disc degenerates then a process occurs in the disc that for some reasons causes pain. Many theories as to why this happens have been postulated, but the exact mechanism involved remains unclear. The problem of a disc collapsing and causing pain is discussed in the disc degeneration help sheet and I prefer to use the term 'discogenic back pain' in patients where there is little or no collapse, but there is pain.

The pain is usually very mechanical in nature, being made worse with activity and relieved by rest. Sometimes the pain may feel very deep inside and rarely there is a radiation of the pain into the front. eg. at L5/S1 patients can have groin pain or testicular pain (in males). Throughout the day the disc loses height and becomes increasingly compressed (which is why we are shorter in the evenings than the mornings) and it is this progressive compression that often makes the pain worse with activity throughout the day although morning stiffness can also be a feature.



Figure 1. An abnormal disc at L5/S1 on MRI scan

Because the pain is mechanical in nature then the first line of treatment should always be an appropriate trial of non-operative treatment working on core stability, muscle strengthening etc. with the manual therapists. It is also sensible to take prescribed anti-inflammatory medication or simple analgesia. If the pain becomes debilitating and affects day to day life despite these measures then surgical intervention may have a role to play.

The first important thing to decide is "Is the abnormal disc on MRI scan the source of pain?" This decision is made from the clinical history and examination together with provocative and/or blocking injections. i.e. it is important to rule the disc in as a source of pain and rule the other possible pain generators out. Discography may therefore be indicated.

Discography involves injecting a small amount of contrast into the disc to see if this provokes the usual discomfort. The disc above is also injected to make sure this is normal as a control. If this is positive and the findings fit with the history, examination and the scan then surgery could be offered. This is because there is a small complication rate (infection, nerve damage) and a small but finite false negative and false positive rate with discography and so it is not always used, but is in most cases as an adjunct.

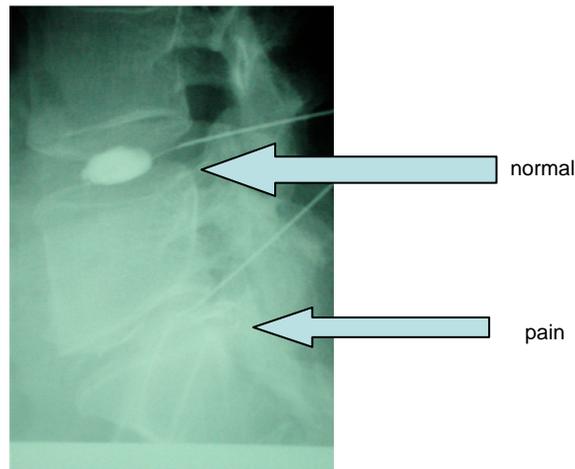


Figure 2. Discography at 2 levels

If surgery is offered then a decision has to be made as to which surgery? The options are fusion versus motion preservation. Motion preservation includes disc replacement, spinal stabilisation or possibly an interspinous spacer. Helps sheets are provided on these on the treatment page. If fusion is to be considered then it can be from an anterior or posterior approach and should always involve complete removal of the disc and replacement with a fusion cage. Anterior approaches are considered in females in particular as they involve less trauma to muscles, but in males careful counselling is involved due to the small risk of retrograde ejaculation. (Helps sheets are also provided on these)



Figure 3. Total disc replacement (Charite) in the same patient

If surgery is confined to selective patients and strict entry criteria are met – as above – then 90% good excellent results can be achieved. It should be emphasised however, that if these options are used in all patients without selectivity then results will not be as good, and hence the reason for a good assessment.