

Injections

Injections into the spine may be diagnostic and/or therapeutic.

Diagnostic Injections

Diagnosis of a specific problem in the spine is often a key element in planning treatment and injections may help to facilitate this. Targeted injections can confirm a pain source in the spine. This may occur in the presence of a scan that does not show an expected anomaly but the clinical scenario is convincing e.g. facet block in radiologically normal facet with clinical scenario suggestive of facet pain or to prove that a radiological anomaly is a source of pain e.g. facet block into an abnormal looking facet. If the pain is taken away then this suggests this to be the source of pain.

Diagnostic injections that aim to relieve pain include nerve root blocks, facet blocks and pars blocks. They can specifically target a particular area in the spine and hopefully identify it as a source of pain. Epidural injections are non-specific and aim to reduce pain from a large area. They are of use in a pain management scenario, but not in making specific diagnosis.

Although most diagnostic injections use local anaesthetic and anti-inflammatory steroid to hopefully also give a therapeutic effect, provocative injections aim to mimic discomfort suffered by a patient. The procedure should not be excruciatingly painful but allow the clinician to appreciate a particular area as a source of pain. An example of this is provocative discography. A small amount of contrast is injected into the disc and the patient is asked if this mimics the usual pain. The injection can be blinded from the patient and verified by using a control level. The procedure has no short term benefit, but if it helps diagnose a problem it may help ongoing treatment.

The limitations of diagnostic injections are that they are not 100% sensitive or specific and it is therefore important to use the test in conjunction with other factors including imaging, history and examination. The complication rate is very small although if a nerve is touched with a needle it can cause temporary significant pain. Other very rare complications include deep infection and nerve damage.

Therapeutic Injections

Unfortunately, the long term efficacy of injections is not proven but they do have a role in the short to medium term in providing pain relief. The period of pain relief may last from hours to months and rarely years although the latter may not be an effect of the injection, rather the natural history of the condition having resolved or being in remission. Examples of therapeutic injections are given below:

1. Nerve root block for root pain due to prolapsed disc – this aims to provide pain relief from acute pain due to nerve compression. The effect is often only short lived, but hopefully provides pain relief while the condition spontaneously resolves – which it does in the majority of cases within 2-3 months.
2. Nerve root block for spinal stenosis – in up to 50% of selected patients the benefit may be up to 2 years.
3. Facet blocks/Medial branch blocks – for facet pain. Can be repeated but should only be if effect prolonged. Rather unpredictable length of effect. If successful, denervation can be offered. This is a day case procedure to take away the nerve supply to the joint.