



## INFORMATION FOR PATIENTS UNDERGOING EPIDURAL STEROID INJECTIONS

Injecting corticosteroid solutions into the epidural space is one of the treatments for patients with nerve root pain (sciatica). The injection may be performed either at the level of the lumbar vertebrae (lumbar epidural) or lower down through an opening in the sacral bone (caudal epidural). Both types of epidural are performed in awake or lightly sedated patients but under certain circumstances caudal epidurals may be performed under general anaesthesia (with the patient asleep).

The cortisone drug used is methyl prednisolone ("Depomedrone") and like many drugs used in hospital it is not actually licensed for injection into the epidural space. It has however been used for many years in this country and its use is endorsed by the Pain Society. Being a "depo" preparation means that it has a long duration of action.

Lumbar epidurals are usually performed with the patient sitting on the edge of the bed or trolley in the anaesthetic room next to the operating theatre. An intravenous cannula is inserted and a small amount of sedation may be given. The back is cleaned with antiseptic solution (very cold) and some local anaesthetic injected into the skin and the tissues underneath. This stings but means that the insertion of the epidural needle should not be too uncomfortable. Occasionally a lumbar epidural can be technically difficult in which case it may be necessary to perform a caudal epidural under general anaesthetic. For this reason patients are asked not to eat or drink prior to the procedure.

As well as the steroid solution, a local anaesthetic will be injected into the epidural space. This may produce some heaviness and numbness of the legs and the trunk for a period of time, usually a few hours. Patients may be discharged from hospital once they can walk safely and have passed urine. They should not drive until the next day or until 24 hours has elapsed if sedation has been given. There should be a responsible person at home with them that night.

## SIDE EFFECTS AND COMPLICATIONS

As with all medical interventions there are potential side effects but reports on thousands of patients indicate that epidural steroid injections are straightforward and safe.

*Technical complications:* Aggravation of back and leg pain can occur for a short time. Occasionally (in less than 1% of patients undergoing lumbar epidurals) a severe headache can occur after a lumbar epidural because the lining of the fluid filled space surrounding the spinal cord has been inadvertently punctured ('dural tap'). The fluid leaks out and causes low pressure in the brain, particularly on sitting up. If the headache persists despite simple pain-killers then an epidural blood patch may be performed which is almost always immediately effective. It involves injecting a small amount of blood into the epidural space which clots and plugs the hole in the epidural lining.

*Urinary complications:* The epidural can affect the nerves that supply the bladder leading to difficulty passing urine (retention). Bladder function returns to normal when the epidural wears off.

*Low blood pressure:* The local anaesthetic in the epidural space can affect the nerves going to the blood vessels so the blood pressure may drop. This is easily correctible with intravenous fluid or drugs.

*Systemic effects:* Diabetic patients commonly experience increased insulin requirements for several days after injection.

*Neurological complications:* Convulsions (fits), breathing difficulty and temporary nerve damage have been reported after epidurals but are rare (about 1 in 10,000 cases). Permanent nerve damage, epidural abscess, epidural haematoma (blood clot) and cardiac arrest have been reported but are very rare indeed (about 1 in 100,000 cases).

**Dr. M. C. Ewart, Consultant Anaesthetist**

**Mr. R. Marshall, Consultant Orthopaedic Surgeon**