

EPIDURAL CAUDAL BLOCK

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James Cyriax in his Textbook on Orthopaedic Medicine states, that the **most effective treatment** for low lumbar back pain is **manipulation and epidural injection**. He also mentions bed rest, but we don't believe that method of treatment has any value in the treatment of low back pain.

Epidural injections were first used in France by Sicard & Catherine 1901 and in 1909 by Caussade and Chauffard. Cyriax, the Doyen of Orthopaedic Medicine, first used epidural injections with local anaesthetics as a means of diagnosing low back pain in 1937. But when patients came back with their back pain alleviated, he realized that he stumbled on its therapeutic applications.

The **therapeutic uses** of epidural local anaesthetic with steroid injections are many: from intractable, chronic backache to referred sciatic pain (nerve root pain with or without neurological signs). J.F. Bourdillon Canadian Orthopaedic Surgeon turned Orthopaedic Physician, in his book "Spinal Manipulation", describes the uses of **caudal epidural injections with local anaesthetic and hydrocortisone** giving lasting relief from back pain in some patients. Unfortunately, a number of Orthopaedic Physicians did not have consistent results with hydrocortisone.

Following a well publicized case of a number of patients in Perth, now nearly 30 years ago, the NHMRC funded a trial to determine the safety of different types of steroid to use in caudal epidural injections and following the trial recommended that only Depomedrol should be used!

In my experience now over 25 years, about 70-75% of patients experience excellent to adequate relief of their pain. About 20% receive some slight temporary relief and the rest get no relief at all. I explain to patients, that the procedure is relatively safe provided injection into a blood vessel is guarded against. Cyriax administered virtually thousands of caudal epidural injections; all as outpatients and with no significant side effects.

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Patients are told, that they will experience some **temporary postural hypotension and weakness of their legs** and I insist that somebody drives them home and they lie down for the day. I always tell them that the pain will most likely get worse for the first 4-5 days and improvement of the pain will not start until the 6th or 7th days following the injection. They are always reviewed in one week.

Everybody asks me: “ **How long does the pain relief** from the injection last”. I cannot tell you. I had a caudal epidural myself now over 3 years ago and I have virtually no back pain. I saw one of my old patients for an unrelated matter the other day; he had a caudal epidural block for very severe back pain 5 years ago and his back has been great.

I have lovely lady who comes back regularly every 6-9 months saying: “I am due for my caudal injection; my back has been very sore for the last couple of weeks”. I have had patients who had minimal relief but still come back wanting another caudal block.

A lady recently was referred to me and she appeared to be an ideal candidate for a caudal with a slight central bulge at L5/S1 on CT Scan. Not only did she have no relief at all but also 5 days after the injection developed severe pain and tenderness of the sacro-coccygial ligament. Fortunately that has now settled. Never seen that before. I referred her to one of our Orthopaedic Physicians who was just as puzzled as I was.

CONTRAINDICATIONS:

It is regarded as **unsafe** to give the injection to a patient **under GA**. Also if there were **local sepsis or even recent sepsis** in the area I would prefer not to inject. If the patient had a recent myelogram (not too many of those done these days but there were when I first started) it is better to wait a couple of weeks. Previous laminectomy or similar back surgery could make the procedure difficult, but is not a contra-indication.

The procedure is also more difficult (and one should reduce the total amount of fluid) in the elderly because of thickening of the fibrous covering over the sacral hiatus. Hypersensitivity of the patient to Xylocaine of course is a contraindication although other, longer

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acting LA-s could be used as an alternative. Finally, any patient who you suspect may have a possible diagnosis of **meningitis** or even any patient with a high **fever should NEVER have a caudal block until their condition has totally settled.**

In summary, the procedure is relatively safe provided one follows certain safeguards. The only "side effect" that the patient can experience is the loss of their back pain.

THE INJECTION:

I normally use 40ml (you can use less but never more) 1% or even half % Xylocaine in two syringes. The second syringe contains 80mg Depomedrol. The patient is lying supine, **jackknifed** with a couple pillows under their stomach. The gluteal muscles must be relaxed otherwise the procedure becomes very difficult.

After sterilizing the area, the caudal hiatus is usually easily palpated and the area under the skin is infiltrated with LA. A **spinal needle** is then introduced and after making certain, that there is no "bloody tap" the first syringe with only LA is injected slowly followed by the second with the Depomedrol. Often the pressure build up to such a degree with the second syringe, that you have no choice but to **inject very slowly**. During this time one continually talks to the patient and our nursing sister keeps an eye on the pulse. Never try and do this procedure by yourself! If the patient's speech starts to slur the injection is immediately stopped until the patient recovers.

The patient then stays on the bed for about 10-15 minutes, after which they are taken by wheelchair to the waiting car and driven home by a friend or relative. Patients are told to walk into the house as soon as they get home and stay in bed for the afternoon, but can get up normally the next morning. They are asked to return for a review in one week.