



PAIN AND SPINAL SYMPTOMS AFTER A SPINAL TAP, EPIDURAL INJECTION, OR BLOOD PATCH

Almost weekly we are consulted about someone who has developed pain and symptoms (i.e., shooting pains into buttocks or legs) after a spinal tap (ST), epidural injection (EI), or blood patch (BP). The good news is that persons who have these symptoms are now aware that a serious pathologic event may occur that can lead to adhesive arachnoiditis (AA). This bulletin provides an explanation for this tragic development and provides urgent and emergency recommendations. Our main message is: "Don't delay meaningful measures that might prevent AA."

Cause of Symptoms: ST, EI, and BP can initiate inflammation in the cauda equina, arachnoid membrane or both. The reason is unclear in most cases. Contamination from an injection or ST is one explanation. Injected blood can be a toxic irritant. There may be pre-existing inflammation in spinal tissues that is accelerated by the medical procedure. Regardless, inflammation in the cauda equina and/or arachnoid-dural layer of the spinal canal can cause severe pain, headache, and radiating pain into buttocks, legs, and feet identical to those which occur in a full-blown case of AA.

The Problematic Issue: Treatment attempts are usually being delayed after pain and symptoms begin pending an MRI or other tests. What's more, the MRI is usually read as normal by radiologists, especially in early stages of cauda equina and arachnoid inflammation. The only possible radiologic signs of abnormalities may be mild swelling or displacement of cauda equina nerve roots. In contrast, AA shows clumping and arachnoid fusion signs. Since the MRI is interpreted as normal, the only medication given may be for headache or muscle relaxation.

Our Recommendations: Regardless of MRI findings, pain and symptoms after ST, EI, or BD require urgent pain relief and suppression of inflammation. Emergency treatment is in the box. In addition, we suggest that palmitoylethanolamide (PEA) with luteolin (Mirica™ or other) 600 to 1200 twice a day, DHEA 200 mg twice a day, and glutathione 500 mg BID be started in a hopeful attempt to prevent AA. Also, a short acting opioid such as codeine (Ultram®), hydrocodone (Vicodin®, Norco®), oxycodone-acetaminophen (Percocet®) should be started for pain relief.

Follow-Up After Emergency Treatment: We continually review cases in which further treatment is not provided after emergency treatment with IV methylprednisolone. We recommend that persons immediately start the basic medical protocol for AA and chronic cauda equina inflammatory disorder as soon as the emergency treatment is finished.

Fear of Over-Treatment: Unfounded. Treatment can be stopped at any time. AA may develop 6 to 12 weeks after pain begins in a high percentage of these cases. Aggressive, urgent treatment may prevent this catastrophe.

Procedures:

Option 1: Intravenous methylprednisolone, 100 to 500 mg daily for 5 consecutive days

Option 2:

- (a) Methylprednisolone (Medrol®) 6-day dose pak,
- (b) Ketorolac (Toradol®) 30 to 60 mg IM (injection) once a day for 3 consecutive days.
- (c) Progesterone 100 mg BID for 3 days.