

## Inadvertent Spinal Subdural (SSH) and Subarachnoid hematoma (SAH) from Epidural Blood Patch (EBP)

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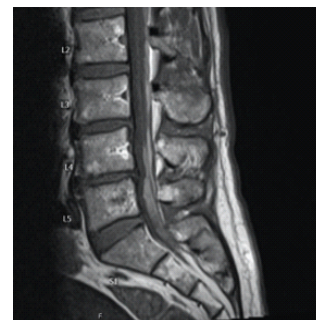
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### Clinical Image

Inadvertent injection of autologous blood in both subdural and intrathecal spaces following EBP is extremely rare. Case reports describe SSH or SAH after attempted EBPs. This illustration depicts combined subdural and subarachnoid collection after EBP for post dural puncture headache (PDPH)(from a lumbar spinal drain), 6 days after 40 ml of autologous blood was injected in the “epidural space” at the same spinal level as the preceding spinal drain. The T1-weighted sagittal (**Panel A**) and axial (**Panel B**) MR image of the spine demonstrates a subdural collection of blood (white arrows) extending from T12-L1 to sacral level and subarachnoid collection of blood (asterisks) extending from L3-4 to the termination of the thecal sac at S2. Mild backache and neck stiffness is not uncommon after EBPs. Worsening back pain with radicular symptoms suggests blood in the subdural or subarachnoid spaces which can result in meningitis, arachnoiditis, lower extremity weakness and radiculopathy.

In our case, the entire volume of blood was unintentionally injected in the subdural space as no collection was noted in the epidural space. It is hypothesized that dural puncture can create a communication within the epidural and subarachnoid spaces increasing possibility of blood leaching there [2]. Literature suggests that EBPs should not be placed at the same spinal level as the previous procedure [1]. No studies confirm or dispute if higher volumes(>15ml) are more efficacious or less safer than lower volumes, however case reports suggest that chances of subdural and intrathecal injection of autologous blood increases with higher volumes [1,3].



Panel A



Panel B

### Conflicts of interest:

The authors have no competing interests.

### References

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