Epidural Blood Patching (EBP) in Spinal Headache

An epidural blood patch (EBP) is a **procedure used to treat post-dural puncture headache (PDPH).** This is often called a spinal headache. It is used to treat headaches that do not respond to the usual treatment. EBP is generally used for treating a person who has received an epidural or spinal, and who has a headache which:

- Is so debilitating as to interfere with a mother's ability to care for her baby.
- Has the characteristics of a PDPH which has not been relieved by 2-3 days of conservative management including:
  - Bed rest.
  - Drinking lots of fluids (including caffeine or caffeine-containing drinks).
  - Taking oral medications for pain, including non-steroidal anti-inflammatory agents. Only take over-the-counter or prescription medicines for pain, discomfort, or fever as directed by your caregiver.
- Is not from neurological problems that have come from the lumbar puncture, or based on an active neurological disease.
- Is not due to an infection in the lumbar area or blood.

This procedure cannot be done if bleeding tendencies are present or if you are taking certain blood thinning medications.

The requirement of no neurological symptoms may be waived if the headache or neck pain and stiffness is very severe and associated with vomiting, or if there is evidence of hearing loss or double vision, and an epidural or spinal tap was recently performed.

REASONS FOR USING AN EPIDURAL BLOOD PATCH

- EBP has an extremely high success rate of close to 100% when placed in the epidural space at the same level as the initial needle puncture. The blood patch works like a glue that prevents CSF (cerebrospinal fluid) leakage and allows the dural hole to heal. Blood may also be forced through the dural puncture forming a plug. The immediate relief from PDPH may be due to an increase in CSF pressure.
- EBP is generally used 48-72 hours after the puncture that caused the PDPH. When used within this time frame the success rate is 91-100%. If the patch is performed at the time of inadvertent dural puncture, or through an epidural catheter (a long, narrow, hollow tube) placed at this time, the success rate is poor and no better than doing nothing. If EBP is attempted at less than 24 hours, the success rate is reported to be as low as 29%, but it may reduce the occurrence rate of PDPH.

PROCEDURE

Two caregivers may do the EBP. One of the caregivers draws the blood from the arm and passes this blood to the other caregiver, who injects the blood into the space where the CSF is thought to be leaking. This is the same spot where the epidural or spinal tap was done. When the blood is injected, generally there will be feeling of tightness in the buttocks, lower back or thighs.

Residual blood is sent to the lab for a culture and sensitivity, as a precaution that a germ has not been accidentally introduced during the procedure.

AFTER THE PROCEDURE

Following the procedure you will be nursed on your back for approximately 2 to 4 hours with some pillows under your knees. It is important to lie still while on your back so that a good clot can form. You should avoid any straining especially right after the procedure.

HOME CARE INSTRUCTIONS

- Do not to carry anything heavier than 15 pounds for 2 to 3 weeks.
- Get as much bed rest as you can for the first 24 hours after the blood patch.
- Squat rather than bend when picking up items in a low position.
- Avoid excessive straining. This can cause the patch to blow out and a return of the PDPH.
- Continue to drink as much as you can, especially beverages with caffeine in them.
- Report any temperature, back pain, or pain radiating down the legs. Report to your caregiver if the headache returns or if you have any difficulty with your bowels or bladder. Also report any other problems not controlled by medications.

Most patients obtain almost instant relief from the PDPH. In some, the relief comes on gradually over a 24 hour period. Following the EBP some will experience mild backache for a few days. Less than 2% will also have mild, passing sensation of prickly or tingly skin (*paraesthesiae*), neck pain, or nerve root pain.

MAKE SURE YOU:

- Understand these instructions.
- Will watch your condition.
- Will get help right away if you are not doing well or get worse.

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