

Post dural punct: Headache

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Proceeding

PDPH can occur both in spinal and epidural due to CSF leakage.

Pathio Physiology of PDPH

i. CSF leakage.

PDPH occurs when CSF leakage > CSF Production

ii. Cerebrovasodilation.

Body attempts to maintain homeostasis within cranium.

iii. CSF lead to compensatory Cerebrovasodilation and headache.

iv. Menigeal Irritation.

v. Pnemocephalus.

Accidental intrathecal injection of air during epidural may cause relatively sudden onset of headache.

Risk factors of PDPH

A. Patient factors:

- a. Gender__females at higher risk.
- b. Age__younger pts at higher risk.

B. Needle characteristics:

- a. Size larger needle size increases loss of CSF and incidence of PDPH.
- b. Shape sharp cutting-edge beveled needle has increased
- c. Incidence of PDPH when compared with pencil-point needles.

Control risk factors of PDPH

C. Procedure factors:

- a. Needle should be inserted "parallel" to dural fibers. Usually, dural fibers run longitudinally.
- b. Paramedian versus midline approach: paramedian may have decreased incidence of PDPH ("flap" rather than a "tin-lid" opening).
- c. Multiple punctures increase risk of PDPH because of increased loss of CSF.

Clinical assessment of PDPH

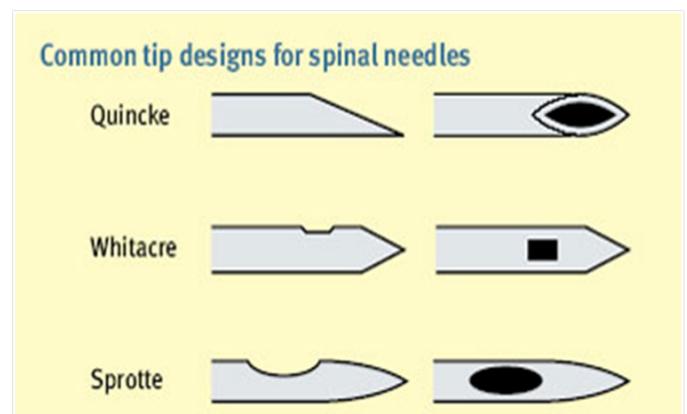
- a. Occipito frontal headache.
- b. Aggravate sitting position.
- c. Patient comfortable supine position.
- d. PDPH usually appears 1 to 2 days after dural puncture and lasts (if untreated) for upto 7 days in most cases.
- e. Other associated symptoms (not reliable).

- f. Photophobia, nausea, vomiting, auditory disturbances.
- g. Cranial nerve involvement (diplopia).

Treatment of PDPH

1. Conservative
 - a. Analgesic + Rehydration and caffeine (i/v or oral)
 - b. Soft diet.
 - c. Caffenie provides transient relief via vasoconstriction.
2. Invasive.
 - a. Epidural blood patch (gold standard).
 - b. Success rate is 70% to 90%.
 - c. Two operators required.
 - d. One takes 15-20 ml of blood from patient.

Other injects this blood in epidural space at same level or one level below after starile technique.¹⁻³



Conflicts of interest

There is no conflict of interest.

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References

1. Johns Hopkins Anesthesiology Book.
2. MorganText Book.
3. Aitkenheads Text Book.