

PDPH WORKUP

- ✓ Pt should report no headache, no sensorimotor deficits, and be able to walk around.
- ✓ **Suspect PDPH if: known wet tap + positional headache**

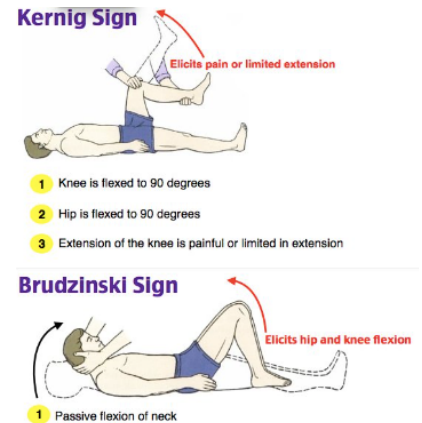
1) **HEADACHE:** onset usually delayed 12-48h post-procedure. H/A onset within 1hr more likely pneumocephalus from air w/ LOR

- **Positional: Worsens sitting upright, improves lying down = HALLMARK.**
 - **Non-positional h/a needs rule-out of other causes***

- Bilateral: Dull/aching, throbbing, or pressure-type
- Fronto-occipital: Frontal pain = ophthalmic nerve off trigeminal. (CN5₁), occipital pain = CN9,10
- Photophobia: Worsens w/ lights on - (CN 3, 4, & *6)
- Positional: Worsens sitting upright, improves lying down
- Dizzy/vertigo: Caused by diplopia/poor accommodation ²/₂ CN palsy 3, 4, *6... (often unilateral)
- Nausea/vomiting: CN10: vagal stimulation
- Shoulder/neck pain & stiffness / nuchal rigidity: Cervical nerves C1-3

***Headache must rule out:**

- **Postpartum PreE:** obtain BP
- **PRES:** h/a encephalopathy, seizures → MRI
- **RCVS:** “thunderclap” headache → MRA, CTA, or catheter angiography
- **Cerebral Venous Thrombosis:** focal deficits, seizures, AMS → MRI or CT venography
 - ✓ Labs: CBC, RFP, lytes, D-dimer for suspected thrombosis
- **Meningitis:** + **Fever** AND: Kernig, Brudzinski, nuchal rigidity, n/v, dizziness, photophobia, or confusion
 - ✓ neuro consult [CBC, LP, CT scan]



2) **VISUAL** – possible double vision (diplopia) & poor accommodation: (often unilateral)

- from transient CN palsy 3, 4, 6 (extraocular eye muscles), esp CN6/abducens: lateral rectus muscle

- **NO field deficits, NO visual loss. If present, indicates occipital involvement/ischemia and needs to r/o RCVS, PRES, CVT**

3) **AUDITORY CHANGES**

- tinnitus: decreased perilymphatic pressures in inner ear → imbalance btwn endolymph & perilymph

ANY of above **AND** Documented wet tap? Normotensive & afebrile?
→ likely PDPH → conservative tx +/- EBP

*Although alternative/conservative tx has been proposed, EBP remains only proven tx for PDPH and therefore can be encouraged and performed early (within 24 hr of diagnosis) if symptoms are severe**

- ✓ **Consult always indicated if serious non-PDPH headache is suspected or cannot reasonably be ruled out.**
- ✓ **Lateralizing neurologic signs, fever/chills, seizures, or change in mental status** are **not consistent** with a PDPH or benign headache.
- ✓ Because PDPH generally resolves spontaneously, h/a that worsens over time and loses positional nature should be strongly suspected to be ²/₂ to **SDH** (esp if focal neurologic signs or decreased mental status)

Contraindications to the EBP:

- Similar to any neuraxial: **coagulopathy/blood thinners, systemic sepsis, fever, infection at the site, and pt refusal.**
- Theoretical concern of seeding CNS - can use slower injections of smaller blood volumes in pts whose CNS may be vulnerable to injury from increased epidural pressures generated with EBP (eg: multiple sclerosis).
 - EBP has been safely provided to both acute Varicella and HIV pts.

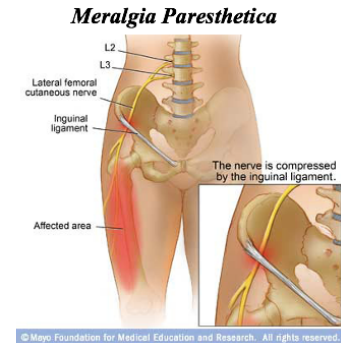
Source:

Postdural Puncture Headache. NYSORA. Published September 21, 2018. <https://www.nysora.com/topics/complications/postdural-puncture-headache/>

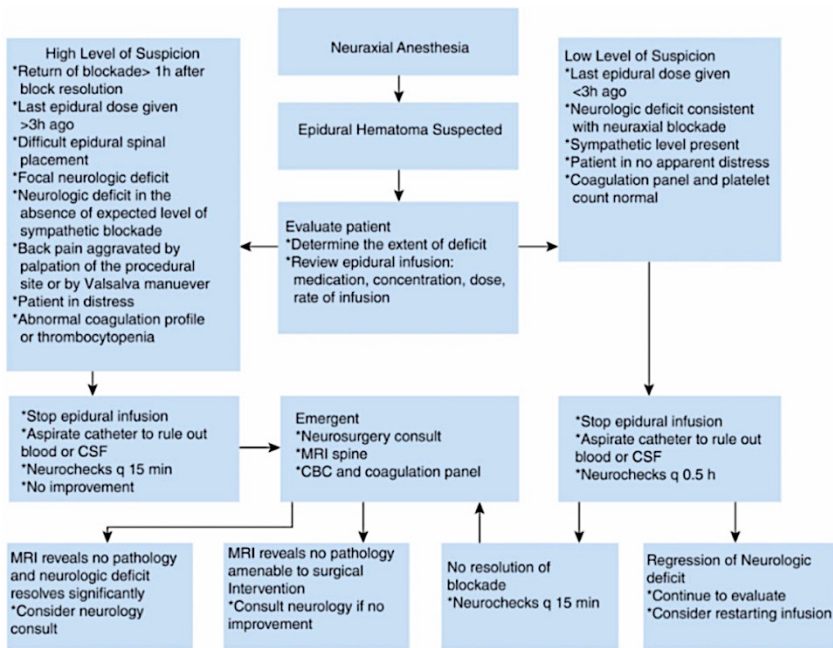
HEMATOMA & NERVE INJURY WORKUP

SENSORIMOTOR ASSESSMENT

- Determine delayed recovery of select dermatomes vs *recovery followed by NEW ONSET* of s/s:
 - ✓ **NEW onset numbness, NEW onset motor loss** → **STAT MRI**
- Pt on blood thinners or +thrombocytopenia? Higher index of suspicion for hematoma
- Isolated dermatomes w/ sensory deficit that never recovered – likely delayed recovery – was block one-sided? (more common w/ heavy top-offs) - reassure pt it should continue to improve, **but if worsens, alert anesthesia immediately.**
- Motor involvement? – further workup: r/o nerve injuries (Table 1 APSF)
 - ✓ New/progressive sensorimotor loss w/ back pain:
 - Does it **radiate** down leg(s)? Unilateral or bilateral? → **STAT MRI**
 - ✓ Loss of bowel and bladder control → **STAT MRI**
 - ✓ Isolated back pain/radicular pain without sensorimotor loss – **neuro consult.**
- Soreness around site? – Check for infection/bruise/inflammation at site.
- Thoracic back pain/soreness? If muscular in nature - soreness/strain? – likely 2/2 labor.
 - ✓ Tx: Can use NSAIDs & Tylenol²
 - NO diazepam (Valium) in breastfeeding.³
- Burning leg pain: **Meralgia Paresthetica?** (Tx: NSAIDs, Lido patch)²
 - ✓ Injury from pushing: LCFN (sensory only) entrapment under inguinal ligament as hips pulled back with pushing/lithotomy. Usually resolves within ~3-6 mos.
 - ✓ S/S: burning pain over anterolateral thigh (L2-3) **No motor involvement.**
 - Usually one-sided but can be b/l if both LFCNs each compressed.



HEMATOMA ALGORITHM (NYSORA)



NYSORA®

Nerve Injuries (APSF)

Table 1. Common Postpartum Peripheral Nerve Injuries and Proposed Mechanisms of Injury

Nerve	Observed deficit	Proposed mechanism and location of injury and risk factors
Lateral femoral cutaneous nerve	Sensory: decreased on anterolateral thigh, "meralgia paresthetica"	Compression under the inguinal ligament with prolonged hip flexion, obesity (secondary to increased pressure at the inguinal ligament)
Femoral nerve	Sensory: decreased on anterior thigh and medial calf Motor: weak thigh flexion (if involvement of the iliacus nerve), weak knee extension	Compression under the inguinal ligament secondary to prolonged hip flexion, abduction, and external rotation; retraction during cesarean delivery; possibly decreased perineural flow to the iliacus nerve
Lumbosacral plexus and sciatic nerve	Sensory: decreased on posterior thigh Motor: weak quadriceps, weak hip adduction, foot drop, involves multiple levels	Compression due to fetal position, compression against pelvic rim, forceps assisted vaginal delivery
Obturator nerve	Sensory: decreased on medial thigh Motor: weak hip adduction, wide gait	Compression due to fetal position, improper positioning, forceps assisted vaginal delivery
Common peroneal nerve	Sensory: decreased on lateral calf Motor: foot drop	Lower extremity positioning, compression at fibular head either by hand or stirrups while anesthetized, compression while pushing

Sources:

- Diagnosis and Management of Spinal and Peripheral Nerve Hematoma. NYSORA. Published June 24, 2018. <https://www.nysora.com/topics/complications/diagnosis-management-spinal-peripheral-nerve-hematoma/>
- Postpartum Peripheral Nerve Injuries - What is Anesthesia's Role? Anesthesia Patient Safety Foundation. <https://www.apsf.org/article/postpartum-peripheral-nerve-injuries-what-is-anesthesias-role/>
- Drugs and Lactation Database (LactMed®) [Internet]. Bethesda (MD): National Institute of Child Health and Human Development; 2006-. Diazepam. [Updated 2024 Jan 15]. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK501214/>
- Drugs and Lactation Database (LactMed®) [Internet]. Bethesda (MD): National Institute of Child Health and Human Development; 2006-. Cyclobenzaprine. [Updated 2021 Mar 17]. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK501396/>