

Clinical Course of Pneumocephalus Complicated by Postdural Puncture Headache

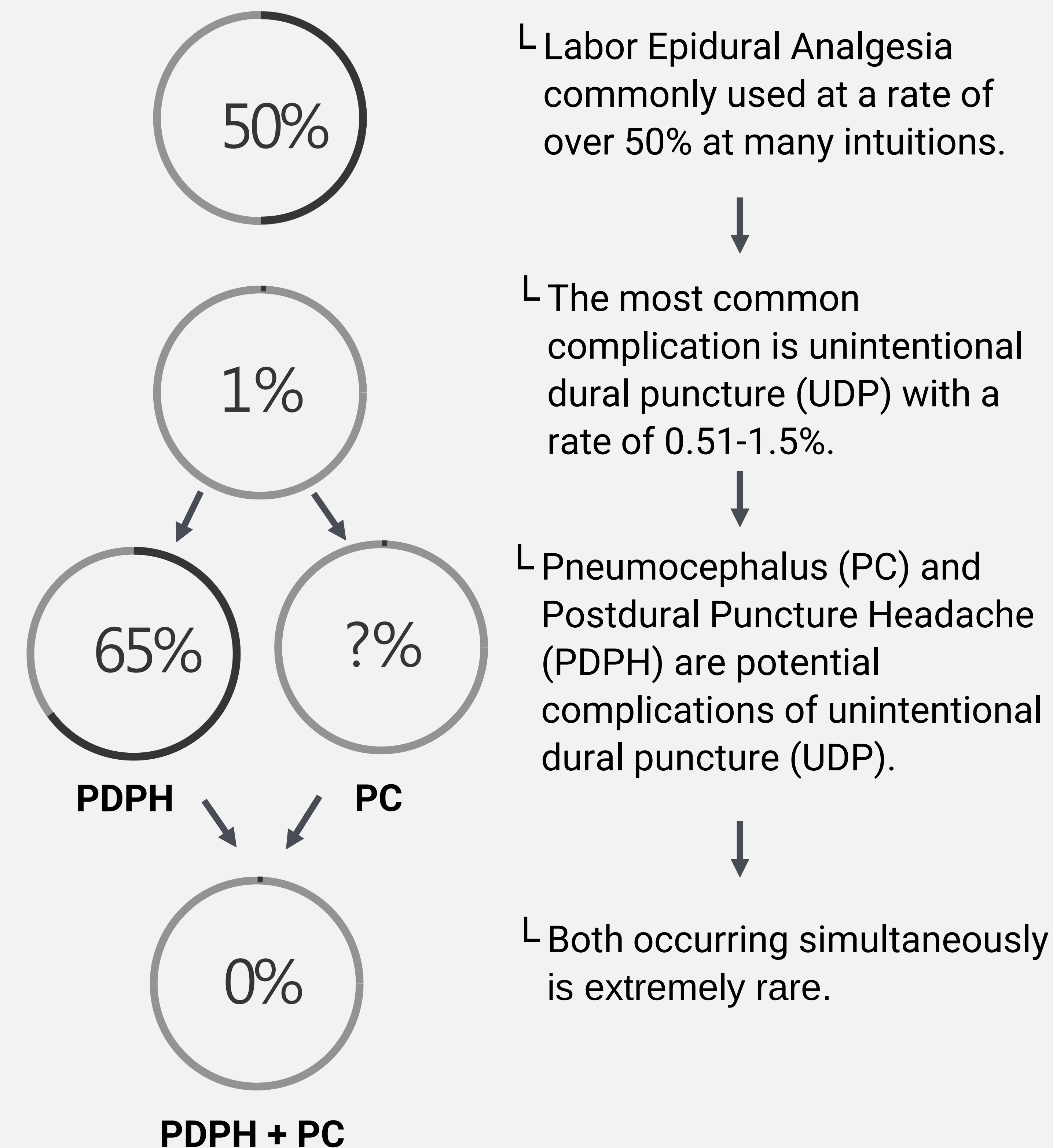
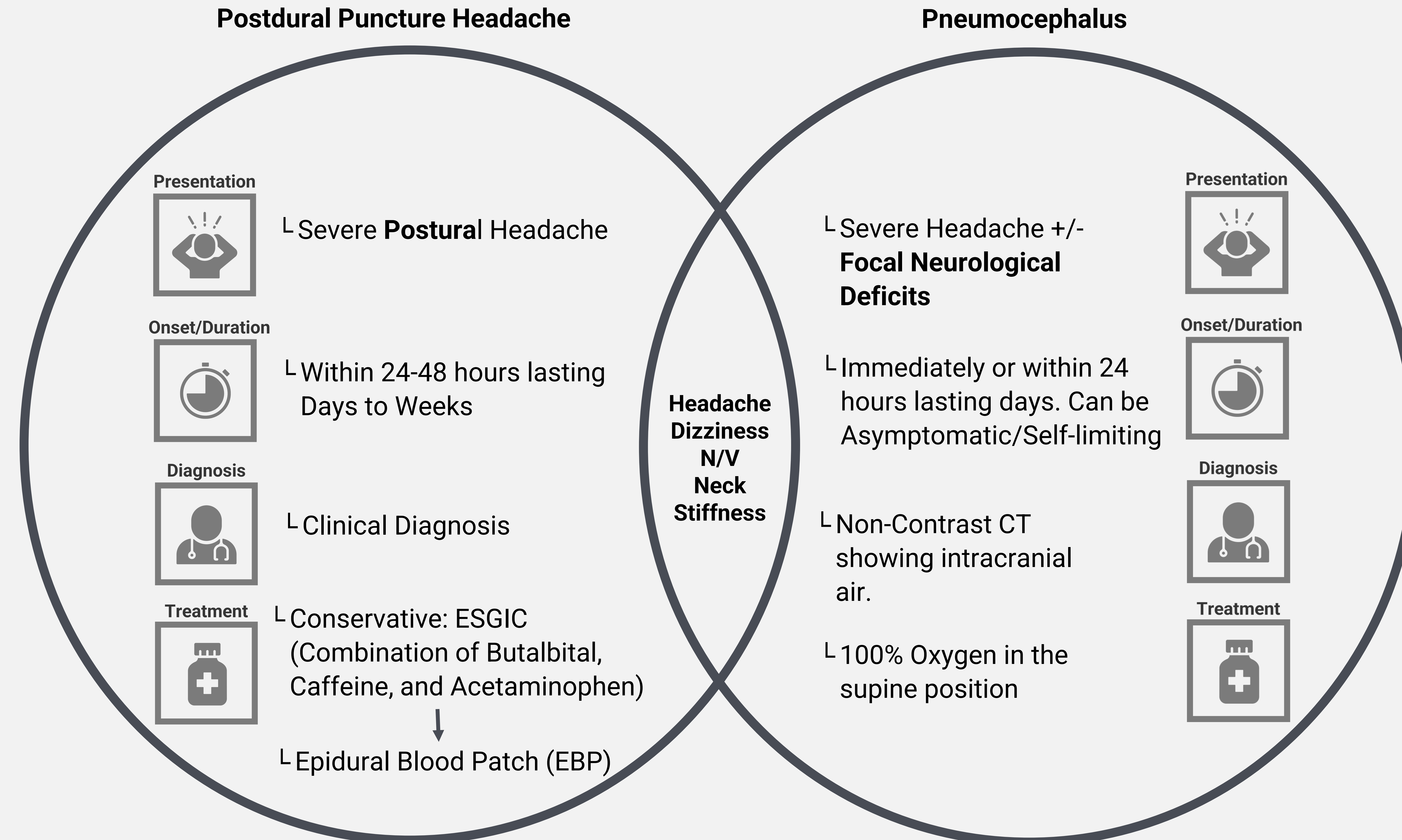
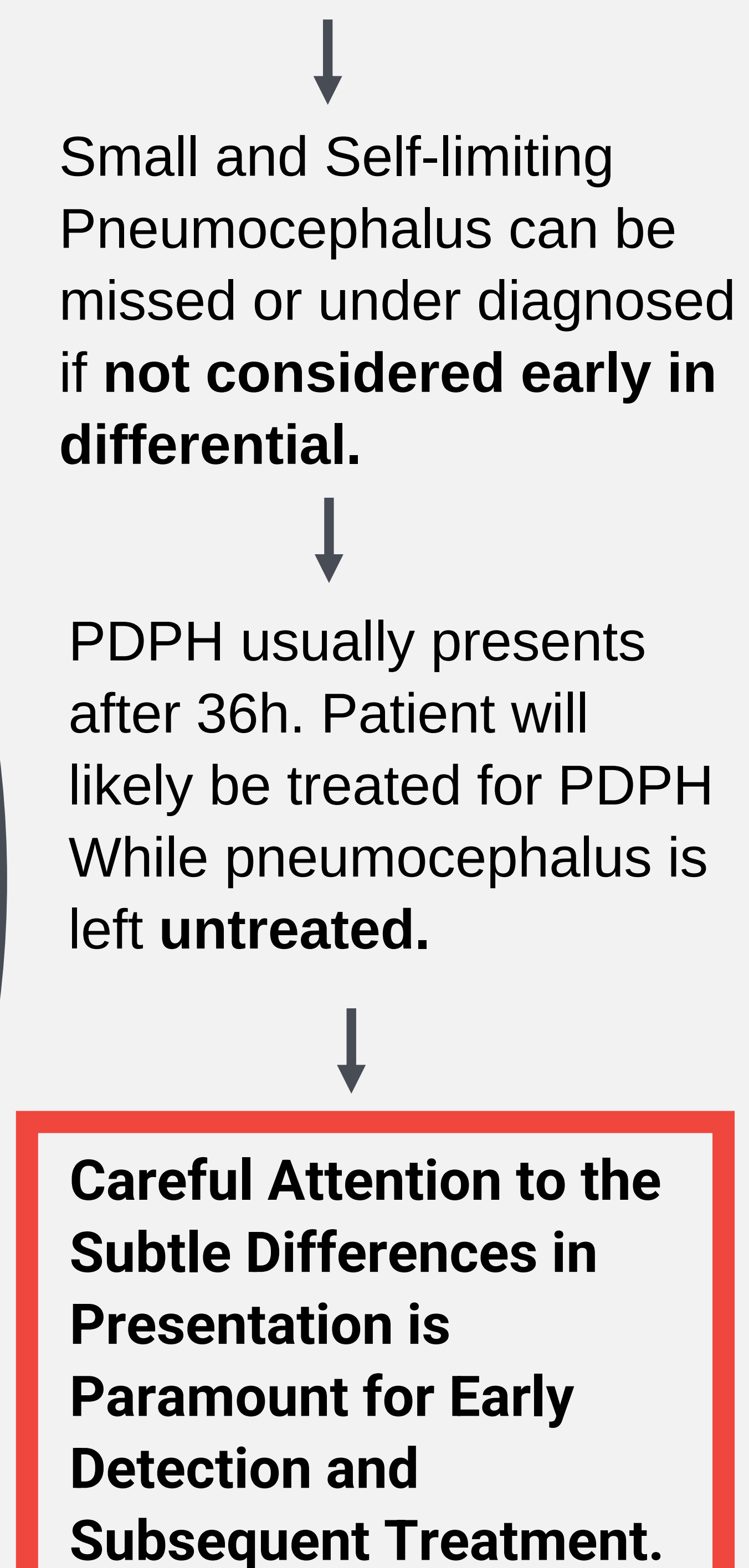
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Introduction

Postdural Puncture Headache

Pneumocephalus

Implication



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Case Presentation

- ⌞ A 33-year-old G6P4115 female with past medical history of prior PDPH presented for induction of labor on 5/5/22 and requested an epidural for labor anesthesia.
- ⌞ During epidural placement, UDP was noted, and the patient developed an immediate HA. She had a successful vaginal delivery.
- ⌞ Over next two days, patient reported a postural HA accompanied by ear pressure + decreased hearing treated with ESGIC. She underwent EBP which ultimately failed after 3 attempts at epidural placement.
- ⌞ A CT scan was done and showed pneumocephalus with air in the frontal horn of the left lateral ventricle (A), basal cisterns (B), and upper cervical canal (C) (Figure 1.) 100% oxygen was started which resulted in HA improvement.
- ⌞ Continues to experience postural HA with neck stiffness. 2nd EBP was done with immediate relief of symptoms, and she was discharged 5/9.

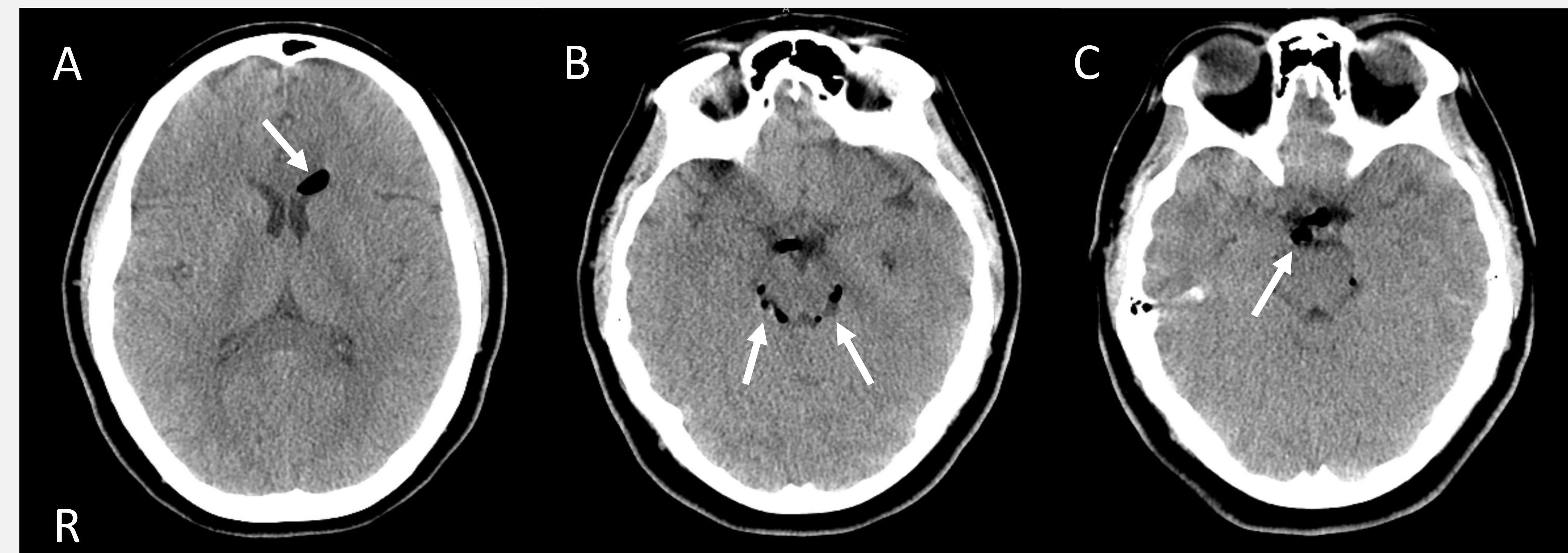
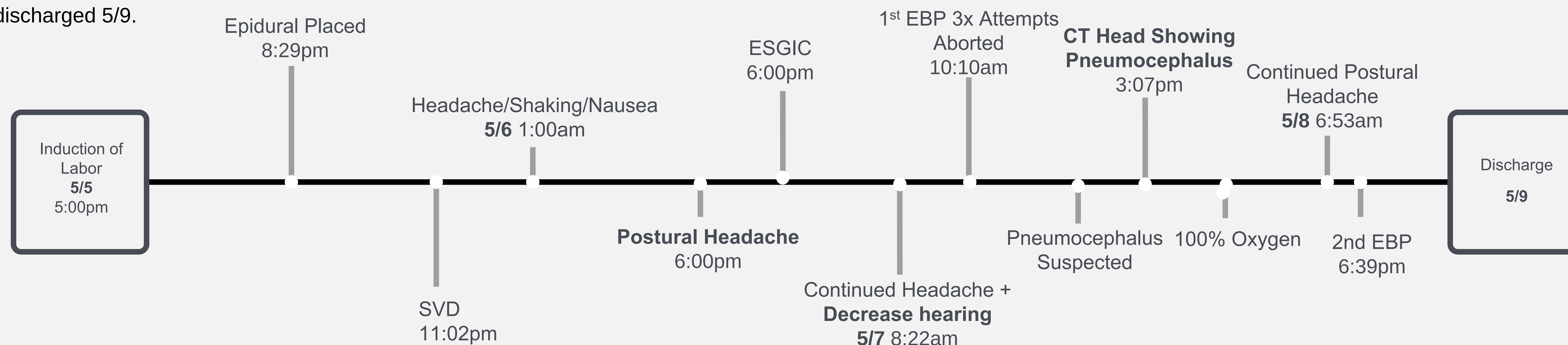


Figure 1. Head CT without contrast



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Discussion

- └ Pneumocephalus is a rare complication of UDP with only a few reports each year. Furthermore, only one other case by Velickovic, describes PC complicated by PDPH.
- └ The overlap in presentation between PDPH and PC poses a challenge to diagnosis, and it is made more difficult when both occur concomitantly as in our patient.
- └ Small and self-limiting PCs can be missed or under-diagnosed if not considered early in differential.
- └ Since post dural HA usually presents after 36h of dural puncture, patients will likely be treated for concomitant PDPH, while PC is left untreated.
- └ Recognition of distinguishing clinical features and symptom onset may aid in prompt investigation and treatment. In our patient, the defining features were the sudden onset HA and neurological deficit (ear pressure/reduced hearing).



└ **Thus, clinicians should have PC on the differential if the Headache presents immediately after UDP and especially if there are accompanying neurological deficits.**

└ **Furthermore, clinicians should be aware of the possibility of both PC and PDPH occurring concomitantly.**