

Association of Second Stage Labor with Epidural Blood Patch Placement Following Dural Punctures – *a retrospective cohort study*

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BACKGROUND:

- Epidural blood patch (EBP) is indicated in moderate to severe postdural puncture headache (PDPH)
- The variation in severity of PDPH may be related to the variable losses in cerebrospinal fluid (CSF)
- Net CSF efflux may be higher in women with dural puncture who undergo Valsalva, pushing and expulsive efforts during second stage of labor

HYPOTHESIS:

- We hypothesized there is a significant relationship between EBP placement in women who experienced second stage labor

METHODS:

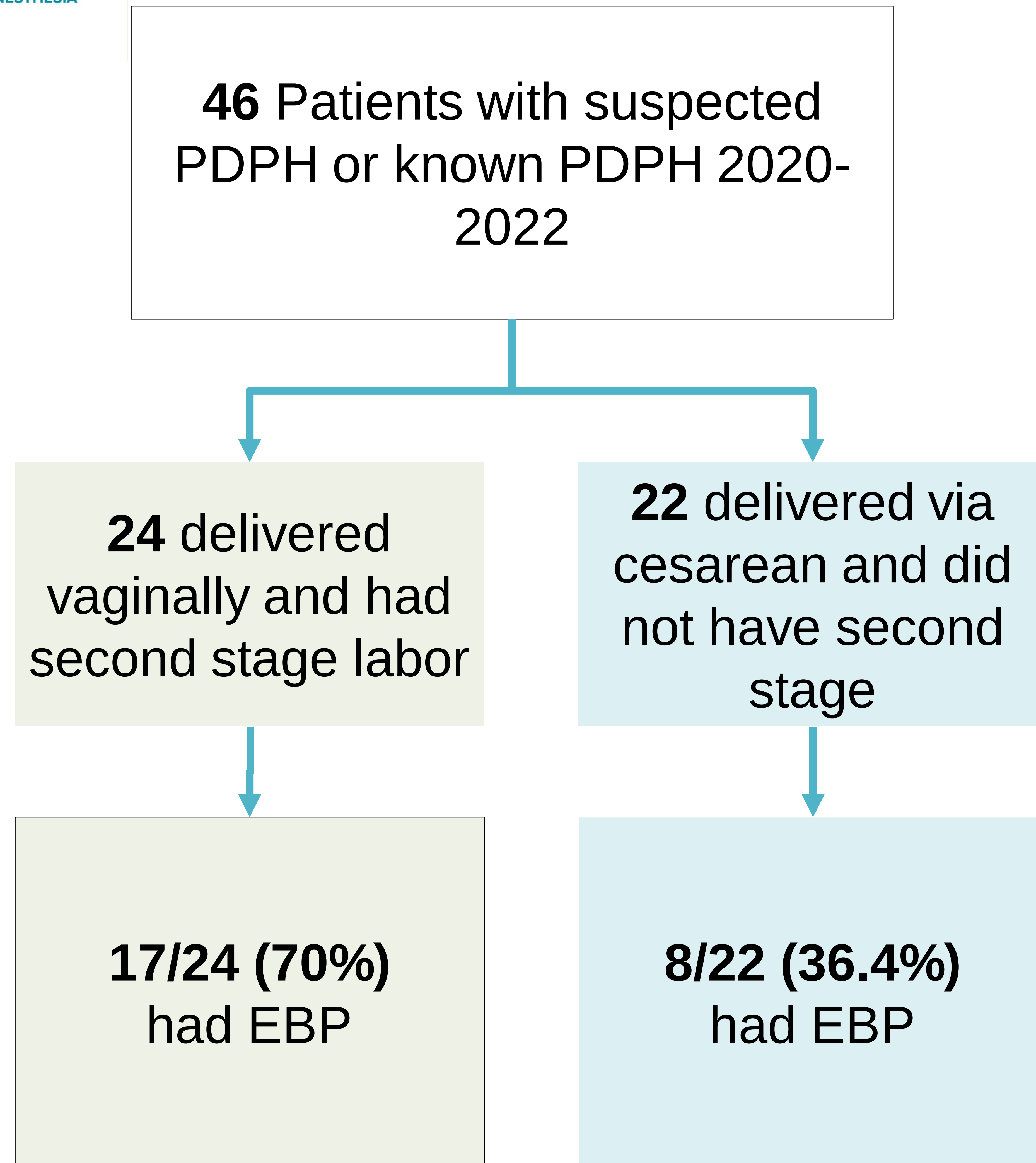
- Following ethics approval, retrospective chart review of patients between 2020 and 2022 with suspected or diagnosed PDPH following anesthesia consultation
- Multivariable logistic regression controlling for size of dural puncture and BMI

Primary outcome:

- Association of second stage of labor with EBP placement following a confirmed diagnosis of PDPH

Secondary outcome:

- Time to first recognition of PDPH
 - Measured from the time of dural puncture to the time of first anesthesia consult for assessment of PDPH



RESULTS:

- After controlling for BMI and dural puncture size, women who experienced second stage of labor and developed PDPH had significantly increased odds of needing an EBP
OR 4.4, 95%CI 1.1 to 19.6, p=0.042
- **Median pain** score on initial recognition of PDPH was **7/10** in both groups
- Median (IQR) time to first recognition of PDPH was significantly earlier in women who underwent second stage of labor
- **17.5h [12.8-25.9] vs 29.4h [26.2-81.3]**
p=0.0003

DISCUSSION:

- Exposure to second stage labor after dural puncture was **significantly** associated with:
 - **EBP** for treatment of severe PDPH
 - Earlier **recognition** of PDPH, by 12 hours
- **CSF loss** after dural puncture may be **increased** with second stage labor

FUTURE DIRECTIONS:

- Given our small sample size, a larger study is required to confirm our findings

References:

1. Russell R, et al. IJOA 2019;38:104-118.