

Service evaluation of accidental dural puncture follow up and outcomes in the Royal Gwent Hospital

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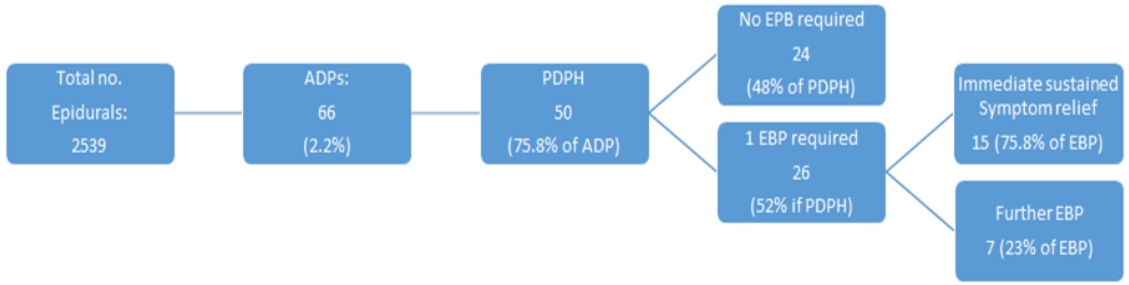
Introduction

Post-dural puncture headache (PDPH) is among the most common complications of neuraxial obstetric anaesthesia, with symptoms ranging from mild headache to severe impairment. Following reports of maternal death associated with PDPH in the 2014 MBRACE-UK report[1], the Royal Gwent Hospital introduced a more stringent protocol for follow up of patients with accidental dural puncture (ADP) in 2015. In conjunction with this the use of 18G Tuohy needles as standard practice for epidurals was also adopted, aiming to improve outcomes following ADP[2]. This service evaluation aims to review our compliance with the new follow-up protocol and review rates of ADP and our management of PDPH, including the need for epidural blood patch (EBP).

Methods

Research and development approval was gained for this evaluation. We defined ADP as both recognised dural puncture and those who subsequently developed PDPH. Patients were identified by review of departmental audit forms for August 2015-2018, and outcomes from uploaded notes and clinic letters. We collated the incidence of PDPH, the experience of practitioner and the requirement for a first and second epidural blood patch (EBP). We also reviewed compliance with initial follow up on the ward or via telephone and then later in clinic, looking out patient outcome and headache resolution.

Results



Of two neurology referrals, one was diagnosed with migraine, the second a consequence of essential hypertension.

PDPH Follow up data	
Ward/Telephone f/u <10d (% ADP)	59 (89.4%)
Number resolved (% f/u)	28 (63.6%)
Clinic f/u (% PDPH)	26 (52.0%)
Clinic DNA/declined (% PDPH)	16 (32.0%)
Number resolved (% f/u)	22 (84.6%)
Neuro referral/ongoing headache	2 (4.0%)

Discussion

Data showed a higher rate of ADP in the Royal Gwent than expected standard[3]. One potential explanation is that the obstetric rota has a high proportion of junior trainees, with two-thirds of epidurals being performed by CT2- ST4. Other possible factors include patient demographic and high workload intensity affecting performance. Further work is being done to review the cause for this. Contrary to our expectations, the use of 18G Tuohy did not appear to significantly reduce the rate of PDPH following ADP[3], or the need for a second EBP[4]. Data regarding follow-ups shows that a vast majority of patients were appropriately reviewed within the first 10 days. There was high degree of symptom resolution in patients seen in clinic and for those in whom significant symptoms persisted, appropriate review was organised and alternative cause was identified. Comprehensive follow up is fundamental in managing morbidity associated with PDPH. Persistent headache despite multiple EBP should be a trigger to consider an alternative aetiology.

References

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