New additions to publications by NALHN Staff 19/10/2018

Dr Munawar Rana and Dr Simon Jenkins, Department of Anaesthesia, who co-authored the attached article which was published in the *International Journal of Obstetric Anesthesia*. *(Paper 1)*

Dr Mithun Varghese, Department of Cardiology, who is a joint author of the attached paper which was published in the journal, *Circulation : Cardiovascular Interventions*. *(Paper 2)*

The papers are now on display in the Library (Level 2). *Please let us know if you or a colleague have had a paper published*, and we will add it to our collection and email it out.

**Paper 1**

**Insertion of intrathecal catheter following a recognised accidental dural puncture reduces the need for an epidural blood patch in parturients: An Australian retrospective study**

*International Journal of Obstetric Anesthesia* (2018); doi: [https://doi.org/10.1016/j.ijoa.2018.08.005](https://doi.org/10.1016/j.ijoa.2018.08.005)

**Abstract:**

**Background:**

There is no clear consensus about how best to prevent post-dural puncture headache (PDPH) following an accidental dural puncture in parturients. Our primary objective was to investigate whether the insertion of an intrathecal catheter following accidental dural puncture reduces the incidence of PDPH and therapeutic epidural blood patch.

**Methods:**

Anaesthetic records from January 2009 to December 2015 were reviewed retrospectively and parturients who had an accidental dural puncture and/or PDPH were identified. Data from those with a recognised dural puncture in whom an intrathecal catheter was inserted at the time of accidental dural puncture (ITC group) were compared to those without an intrathecal catheter (non-ITC group), as were outcomes of patients with an intrathecal catheter for >24 hours compared to <24 hours.

**Results:**

Of 94 recognised accidental dural punctures, 66 were in the ITC group (37 for 24 h) and 28 in the non-ITC group. In the ITC group, 22 (33.3%) required an epidural blood patch in comparison to 19 (67.9%) in the non-ITC group (*P* <0.01, 95% CI 12.5 to 52.0). In the ITC group, 62 (93.9%) developed PDPH in comparison to 28 (100%) in the non-ITC group (*P*=0.186, 95% CI 6.55 to 14.57). Intrathecal catheter insertion for 24 h obviated the need for an epidural blood patch in 28 (75.7%) parturients, compared to 13 (59.1%) if <24 h (*P*=0.184, 95% CI 7.08 to 39.72).

**Conclusions:**

Inserting an intrathecal catheter after a recognised accidental dural puncture significantly reduced the need for an epidural blood patch.

**Paper 2**

**Intravascular Brachytherapy for the Management of Repeated Multimetal-Layered Drug-Eluting Coronary Stent Restenosis**

*Circulation : Cardiovascular Interventions* (2018);11(10) e006832

**Abstract:**

**Background:**

Because of the widespread acceptance of percutaneous coronary intervention with drug-eluting stents as an effective treatment strategy for in-stent restenosis, it is common to encounter multimetal layer stent restenosis in the recent years. This study aimed to evaluate the clinical outcomes of such patients treated with intravascular brachytherapy (IVBT) in comparison with other percutaneous options.
**Methods & Results:**
We enrolled patients who underwent percutaneous coronary intervention during the period between 2011 and 2015 for recurrent drug-eluting stents in-stent restenosis with at least 2 layers of stents at the lesion site. This analysis compared patients who underwent treatment with IVBT and those who did not (non-IVBT group). The primary endpoint measured was major adverse cardiac events defined as a composite of target lesion revascularization, myocardial infarction, and all-cause mortality at 12 months. Adjusted associations were measured using propensity score matching. A total of 328 percutaneous coronary intervention patients met the eligibility criteria, of which 197 patients received IVBT, and 131 patients underwent routine percutaneous intervention. The primary endpoint was significantly lower in patients undergoing IVBT (13.2% and 28.2%; \( P=0.01 \)). A propensity score matching for risk factors of in-stent restenosis identified 182 patients. The advantages of IVBT with regard to 1-year major adverse cardiac events were confirmed in this matched cohort (13.2% and 30.8%; adjusted hazard ratio [95% CI]: 0.37 [0.18–0.73]; \( P<0.01 \)).

**Conclusions:**
In this analysis, IVBT led to significantly lower major adverse cardiac events in patients with multilayered drug-eluting stents restenosis when compared with other percutaneous options at 1-year follow-up.