Background and Aims: Spinal anaesthesia is a widely used technique for transurethral resection of the prostate (TURP). Nonetheless, a critical complication associated with spinal anaesthesia is hypotension. Saddle block, an alternative technique, is a potential solution to this problem. We performed a meta-analysis to compare spinal anaesthesia’s safety with the saddle block for TURP.

Methods: PubMed, EMBASE, Scopus, and Cochrane were searched for randomized controlled trials (RCTs) comparing spinal anaesthesia to the saddle block for TURP. Outcomes assessed included haemodynamic changes, and vasopressor consumption. Statistical analyses were performed using RevMan 5.4. The risk of bias was appraised using the RoB-2 tool. Our study is registered in the PROSPERO under protocol number CRD42023417092.

Results: Saddle block anaesthesia resulted in a significantly lower decrease in systolic blood pressure (Mean Difference -13.25mmHg; 95% CI -18.01 to -8.48mmHg; p<0.0001; I² = 98%; 5 RCTs; 380 patients; figure 1) and lower vasopressor needs (Risk Ratio 0.16; 95% CI 0.03 to 0.73; p 0.02; I² = 61%; 4 RCTs; 280 patients; figure 2) when compared to spinal anaesthesia.

Conclusions: According to our research, using saddle block anaesthesia as an alternative to spinal anaesthesia for TURP could potentially offer a more favorable haemodynamic profile and lower vasopressor consumption.

Abstracts

Please confirm that an ethics committee approval has been applied for or granted: Not relevant (see information at the bottom of this page)

Application for ESRA Abstract Prizes: I apply as an Anesthesiologist (Aged 35 years old or less)

Background and Aims: Arachnoiditis is a rare but devastating disorder caused by a variety of insults, one purported to be local anesthetic (LA) neurotoxicity following neuraxial blockade. We examined reported cases of arachnoiditis attributed to LA neurotoxicity to characterize the strength of association.

Methods: A systematic review was conducted according to Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines, and pre-registered through the Open Science Framework (https://osf.io/b6txa). The databases Medline, EMBASE, CINAHL, and Cochrane CENTRAL were searched (from inception to December 2022) for articles attributing arachnoiditis to LA following neuraxial anesthesia.

Results: We screened 1158 studies and 38 met inclusion criteria, all of which were case reports or series representing a total of 129 patient cases with ages ranging from 15-67 years. Over half of studies were published prior to this century and inconsistent with modern practice. Neuraxial techniques included 76 epidurals, 47 spinals, and 6 combined spinal-epidurals (table 1). Completeness of reported data was poor (figure 1). Studies reporting the greatest number of cases and/or originating from Western countries had the least complete...
Overall, more than half (74) of the 129 patients with arachnoiditis attributed to LA neurotoxicity experienced a complicated needle or catheter insertion, including memorable paresthesia, pain, or multiple attempts, irrespective of the type of neuraxial block.

Conclusions The aggregate evidence attributing arachnoiditis to LA neurotoxicity is largely outdated, incomplete, or both, and insufficient to characterize the strength of association. However, there appears to be an association between complicated or traumatic insertion and arachnoiditis.

Obstetric – Free papers 2

**OP026 NRfit epidural kit evaluation**

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10.1136/ramp-2023-ESRA.26

Please confirm that an ethics committee approval has been applied for or granted: Not relevant (see information at the bottom of this page)

Application for ESRA Abstract Prizes: I apply as a Trainee/Resident/Fellow (no age limit)

**Background and Aims** UK safety alerts recommend the exclusive use of non-luer connectors for neuraxial and regional procedures. We recently transitioned from Luer to NRfit Portex/Smiths epidural kits. Following 2 successive cases of retained epidural catheter tip, we investigated alternative kits, aiming to review the commonly available brands of NRfit epidural kit and comparatively assess their design, utility and function.

**Methods** 1. Desktop analysis- Over 4 weeks in September 2022, obstetric anaesthetists performed an unblinded non-clinical desktop assessment of 4 NRfit epidural kits- Portex/Smith (24-1300-22), Pajunk (0331166-49), B.Braun 20G (4517309N-01) and Vygon (5191.601). The survey focused on needle, loss of resistance (LOR) syringe, catheter and filter/connector.

2. Medical physics analysis- A laboratory assessment comparing the physical properties of the kits (packaging, needle, stylet, needle wings, LOR syringe, catheter, filter/connector, ease of catheter shearing, and line pressures). 3. Clinical analysis- Based on the previous phases, 4 products including B. Braun 19G (4514025N-01) had each been clinically trialled for 4 weeks in obstetrics by January 2023 and were assessed on a follow up survey.

**Results** 17 anaesthetists were surveyed in phase 1 and 9 anaesthetists in phase 3 of the project (figure 1). In the desktop (figure 2) analysis Portex/Smiths scored highly overall. Pajunk scored best overall in the medical physics analysis. Portex/Smiths and B.Braun 19G scored highly overall and were the preferred brands in the clinical (figure 3) analysis.

**Conclusions** No first generation NRfit kit is optimal, and all have design issues. Some issues are more tolerable than others and iterative design changes from all brands are eagerly anticipated.