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CURRENT PRACTICE IN PAEDIATRIC REGIONAL ANAESTHESIA (PRA) – SWIFT SURVEY 2022

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Introduction

The APRICOT study of current practice found approximately 16% of children undergoing anaesthesia in the United Kingdom had a regional block,(1) it is recommended practice for many common procedures.(2,3) However, there is much variety across current practice within Paediatric Regional Anaesthesia (PRA). There is relatively little evidence suggesting, not just which techniques are most effective/safest, but what current practice actually is. The 2022 PATRN Swift Survey aimed to investigate this.

Methods

Participants completed a Microsoft Forms questionnaire exploring: their grade; their confidence with PRA; their current analgesic practice for four common surgical procedures with recommendations for PRA;(3) and what follow-up and complication checking is provided. This survey was distributed at the APAGBI ASM 2022, and amongst other affiliated Paediatric Anaesthetists.

Results

195 valid responses were received: 169 (87%) were Consultants (53% specialised in Paediatrics). Inguinal hernia repairs are mostly facilitated by ilioinguinal/iliohypogastric blocks (56%; of which 77% ultrasound-guided). Caudal (16%) and transversus abdominis plane (TAP) (5%) blocks are also used. However, many rely on surgical infiltration (19%). Most circumcisions are facilitated with a penile block (90%; 7% are done by the surgeon, 3% are ultrasound-guided). Appendicectomies are mostly supported by surgical infiltration only (61%), TAP blocks are the most used (21%), but many other blocks are used by a small number (ilioinguinal/iliohypogastric: 2%; rectus sheath: 2%; quadratus lumborum: 2%). Forearm fracture open-reduction-internal-fixation also tend not to be supported by PRA (76%, 54% relying on surgical infiltration). Brachial plexus blocks were the most common (19%), then peripheral nerve blocks (4%). Non-Consultants appeared least confident with PRA. Consultants with fewer than five years' experience appeared somewhat more confident than more experienced Consultants (54% vs. 46% rating very comfortable, 26% vs. 41% rating fairly comfortable). Post-PRA analgesia advice is mostly just verbal (65%). Quality of analgesia assessment, and complications follow-up, was mostly just by in-hospital review (80%, 64% respectively). 20% of participants stated no complication follow-up.

Discussion and Conclusion

Due to the sample size and nature of data collected no statistical inference could be made. However, it is clear that there is much heterogeneity and no clear standard of practice within PRA. The results of this survey fit with the APAGBI's recommendations for PRA in sub-umbilical and urological procedures.(2) These findings also agree with suggestions that the UK performs fewer regional blocks than the European average.(1) The European Society for Paediatric Anaesthesiology (ESPA) state PRA as a requirement of intermediate and advanced level care for all of these operations.(3) Specifically, amongst this cohort, provision of PRA for appendicectomy and limb fracture repair may, therefore, benefit from improvement. Further research should examine whether a more standardised, and more widely used, approach to PRA practice and complication follow-up, could help provide even better care.

References

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