Bilateral Cervical Plexus Block for Anterior Cervical Spine Surgery: Study Protocol for a Randomised Placebo-Controlled Trial

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Study protocol

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Abstract

Background There has been increasing focus to improve the quality of recovery following anterior cervical spine surgery (ACSS). Postoperative pain and nausea are the most common reasons for prolonged hospital stay and readmission after ACSS. Superficial cervical plexus block (SCPB) provides site-specific analgesia with minimal side-effects, thereby improving quality of recovery. The aim of our study was to investigate the effect bilateral cervical plexus block has on post-operative recovery in patients undergoing ACSS.

Methods The study is a pragmatic, multi-centre, blinded, parallel-group, randomised placebo-controlled trial. 136 eligible patients (68 in each group) undergoing ACSS will be included. Patients randomised to the intervention group will have a SCPB administered under ultrasound guidance with a local anaesthetic solution (0.2% ropivacaine, 15mL); patients randomised to the placebo group will be injected in an identical manner with a saline solution. The primary outcome is the 40-item quality of recovery questionnaire score at 24 hours after surgery. In addition, comparisons between groups will be made for 24-hour opioid usage and length of hospital stay. Neck pain intensity will be quantified using the numeric rating scale at 1, 3, 6 and at 24 hours post-operatively. Incidence of nausea, vomiting, dysphagia or hoarseness in the first 24 hours after surgery will also be measured.

Discussion By conducting a blinded placebo trial, we aim to control for the bias inherently associated with a tangible medical intervention and show the true treatment effect of SCPB in ACSS. A statistically significant result will indicate an overall improved quality of recovery for patients; alternatively, if no benefit is shown, this trial will provide evidence that this intervention is unnecessary.

Trial registration Prospectively registered with the Australia New Zealand Clinical Trials Registry: ACTRN12619000028101. Registration date: 11/01/19.

Full Text

Due to technical limitations, full-text HTML conversion of this manuscript could not be completed. However, the latest manuscript can be downloaded and accessed as a PDF.

Figures

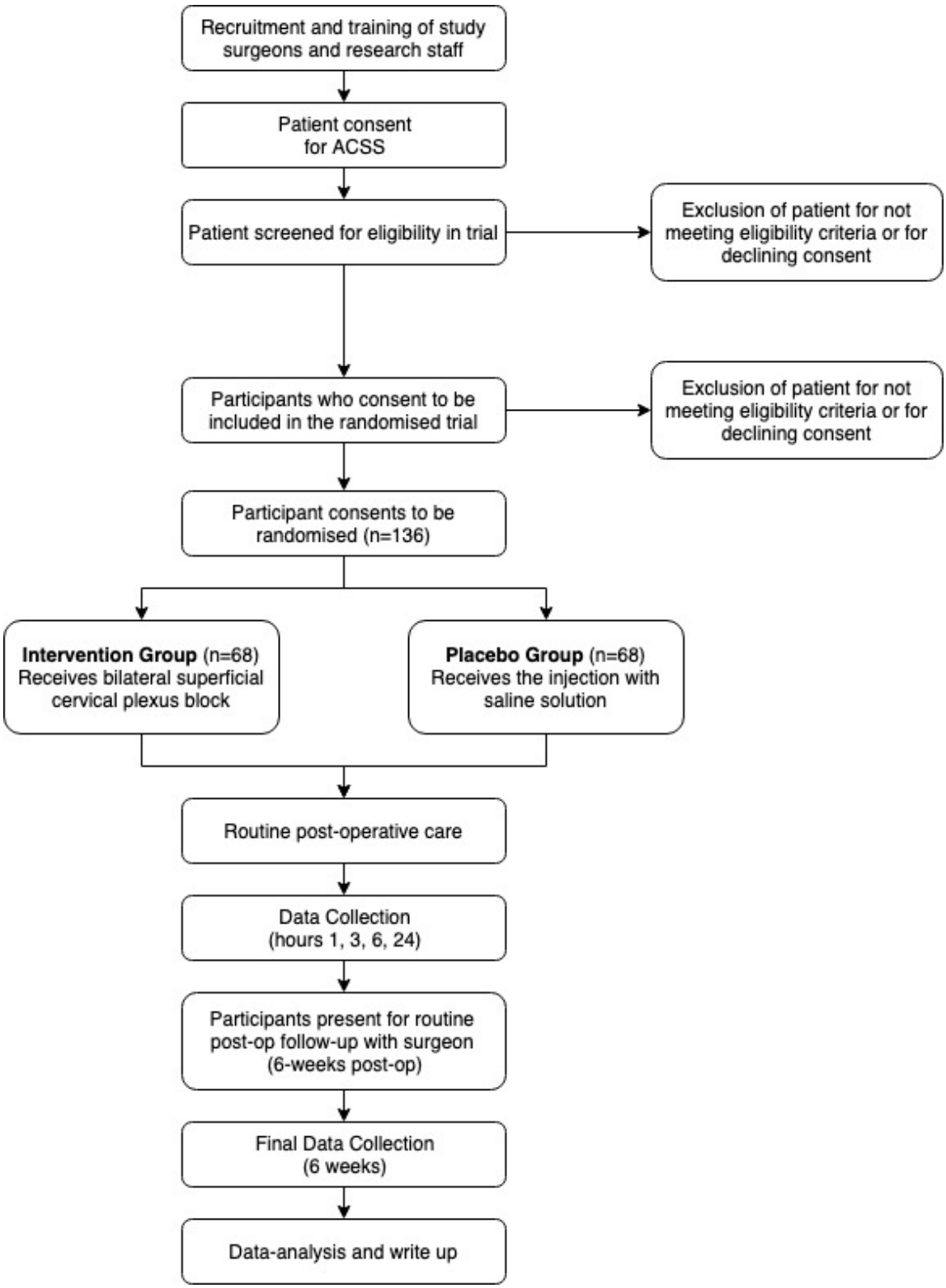

Figure 1

Participant Timeline

Supplementary Files

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