

Walking Versus Lying To Prevent Hypotension Following Spinal Anaesthesia for Caesarean Section – A Randomised Controlled Trial

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Background: A Cochrane systematic review suggests that walking for 15 minutes prior to caesarean section under spinal anaesthesia reduced hypotension when compared with lying on a trolley prior to spinal anaesthesia. We aimed to investigate whether walking decreases the incidence of hypotension following spinal anaesthesia.

Methods: We performed a randomised controlled trial during December 2007 – May 2008 at the largest centre for maternity care in South Australia. We included women >18 years, > 34 weeks gestation; singleton pregnancy presenting for elective caesarean section under spinal anaesthesia. Women unable to stand or walk for 15 minutes, pre-existing hypertension or pre-eclampsia, multiple pregnancy, grade 3-4 placenta praevia were excluded. Randomisation was computer generated and we consecutively numbered opaque sealed envelopes for allocation. Group 1 women were taken to theatre on a barouche or trolley lying with a wedge. Group 2 women were asked to walk to the operating theatre for at least 15 minutes prior to positioning for spinal anaesthesia. The primary outcome was the number of women requiring treatment for hypotension within 20 minutes of induction of spinal anaesthesia. Hypotension was defined as a fall in systolic pressure of 20% from the baseline or <100 mmHg systolic. Ephedrine or metaraminol were used to treat hypotension.

Results: We approached 45 women. No patients declined to participate. One participant's data was mislaid leaving 44 suitable for analysis. Three participants in the lying group had failed spinal and were converted to general anaesthesia. Two participants, also from the lying group, withdrew without explanation. Two patients in the walking group had a protocol violation (not given 6mg prophylactic ephedrine). An intention to treat analyses was performed. We analysed 17 participants in group 1 and 20 in Group 2. There was no difference between groups in baseline data. There was no differences in the need for intervention between walking and lying groups (RR 0.81, 95% CI 0.53, 1.22) by 20 minutes. For hypotensive treatment prior to delivery there was also a trend to lower hypotension in the walking group which was not significant (RR 0.69 95%CI 0.40, 1.21). Most women preferred to walk to theatre.

Conclusions: There was no difference in the need for intervention but patients show a strong preference to walk to theatre rather than lie on a trolley prior to spinal anaesthesia.