

This prospective randomised controlled study was conducted with the aim of evaluating the efficacy of body manoeuvres in improving the success rate of CVC through EJV” Magoon et al (2017).

Abstract:

BACKGROUND AND AIMS: The external jugular vein (EJV), often used for resuscitation, has been underutilised for central venous catheterisation (CVC) in view of an unpredictable success rate. There is an encouraging literature on the improved success rate of CVC through EJV with the inclusion of certain body manoeuvres. This prospective randomised controlled study was conducted with the aim of evaluating the efficacy of body manoeuvres in improving the success rate of CVC through EJV.

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METHODS: One hundred patients aged 18-50 years, scheduled for elective surgery requiring CVC, were randomly assigned to either undergo CVC using Seldinger technique with body manoeuvres or a control group undergoing CVC without body manoeuvres. The primary outcome was the success rate of CVC, as observed in the post-procedure chest radiograph. Secondary outcomes included quality of central venous pressure waveform, catheterisation attempts, total time for CVC, complications.

RESULTS: CVC was achieved in 98% (49/50) of patients in study group and 80% (40/50) of patients in control group ($P = 0.008$). Mean catheterisation time was significantly lower in the study group (151.06 ± 40.50 s) compared to control group (173.50 ± 50.66 s) ($P = 0.023$). The incidence of catheter misplacement and failure to cannulate were lower in the study group (0%, 2% vs. 20%, 12.5%, respectively). Groups did not differ in a number of catheterisation attempts and incidence of haematoma.

CONCLUSION: Inclusion of various body manoeuvres to Seldinger technique significantly improves the success rate of CVC through EJV.

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Reference:

Magoon, R., Malhotra, S.K., Saini, V., Sharma, R. and Kaur, J. (2017) Randomised controlled trial of central venous catheterisation through external jugular vein: A comparison of success with or without body manoeuvres. *Indian Journal of Anaesthesia*. 61(12), p.985-989.

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