

Letter

Passive leg elevation and head-down tilt: effects and duration of changes

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I am intrigued by the recent further evaluation of passive leg elevation (PLE) in the perioperative period for patients undergoing cardiac surgery [1].

Following prior involvement with somewhat similar evaluations [2], I am left wondering what conclusions may have been reached if the experimental protocol had been expanded to include a penultimate assessment with the legs still elevated (i.e. between time point 3 and time point 4), and also to examine the effects of head-down tilt (HDT) as used during central venous cannulation.

On the one hand, the autonomic [2] and haemodynamic effects [3–5] of postural manipulation have been shown to be both minimal and short lived. I surmise that the adverse effects observed may have been self-correcting during the course of PLE, rather than only after resumption of the supine position (i.e. before time point 4). This perhaps thereby minimises the clinical importance of these effects. On the other hand, the patterns of changes seen with HDT are very similar to those induced by PLE [2,3].

It follows that any caution advised regarding PLE for patients known to have reduced right ventricular ejection fraction should be extrapolated to the use of HDT for central venous catheter placement. The data provided could justifiably be added to a list of reasons for avoiding the indiscriminate use of PLE as a therapeutic manoeuvre in hypotensive conditions. As for other applications, it is difficult to think of an immediate alternative to PLE for the preparation of the sterile field required for a coronary artery bypass vein graft requiring use of harvested saphenous veins (or to HDT in central venous catheter placement). The advised caution deserves due consideration for both PLE and HDT.

Competing interests

None declared.

References

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