

Peripheral venous pressure as a reliable predictor for monitoring central venous pressure in patients with burns

Sir,

The article by Sherif *et al.*^[1] on peripheral venous pressure (PVP) was very interesting. Fluid resuscitation of burns patient is extremely important part of initial

management. Peripheral access for fluid resuscitation must be used as it helps in faster initiation of fluid therapy. The use of PVP to monitor hemodynamics and volume status is very innovative.

The volume of fluid infusion is calculated as per the formulae based on percentage body surface area affected by burns. The use of hemodynamic monitoring has not been proven to be of much importance in the management of such patients. Most of the studies quoted in this study that have shown any use of invasive monitoring have used pulmonary artery catheter. The benefit of both central venous pressure (CVP) and pulmonary capillary wedge pressure for hemodynamic monitoring have been questioned in various trials and meta-analyses.^[2,3] We

doubt if there can be a worthwhile role of PVP to help in volume resuscitation of burn patients.

The use of central venous access is also important in the hemodynamically unstable patient because it helps to give vasopressor medications, which cannot be given by the peripheral route. These patients may also need mechanical ventilation, which mandates the use of sedative and analgesic medication. Thus in such patients requiring multiple infusions central venous access would be necessary as peripheral access would not be satisfactory in such cases.

The Bland–Altman analysis has shown in the study a difference of -1.2 with an standard deviation of $+1.96$, which means that PVP and CVP can differ by a range of 5.12 mm Hg more to 2.72 mm Hg less.^[4] This is not a clinically acceptable margin of error for the use of PVP as a surrogate for CVP. The interpretation of data is thus always a clinical judgment. These findings are similar to the Tugrul *et al.*^[5] study that showed a good correlation but poor clinical agreement. We feel the range is too wide for effective utilization at the bedside. The [Figure 2] is written to be depicting the hourly mean difference between CVP and PVP but in the graph there is no hour axis. We think it's the scatter diagram of the data which has been wrongly labeled.

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Conflicts of interest

There are no conflicts of interest.

Shakti Bedanta Mishra, Afzal Azim

Department of Critical Care Medicine, SGPGIMS, Lucknow, Uttar Pradesh, India

Correspondence:

Dr. Shakti Bedanta Mishra,
Department of Critical Care Medicine, SGPGIMS, Raebareli Road,
Lucknow - 226 014, Uttar Pradesh, India.
E-mail: shaktimishra84@gmail.com

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