

Obtaining external jugular venous access in the prone-positioned patient

Sir,

The anesthesiologist is more than occasionally confronted with having to obtain or “augment” intravenous (IV) access. This frequently occurs with changes in patient positioning. Moreover, “tucking” or adduction of the arms may create “resistance” and additionally interfere with the appropriate flow of IV fluids. Existing IV access may also “clot off” or infiltrate; despite previously working successfully.

Once in the prone position, the ability to obtain additional IV access can be challenging. The authors have utilized the external jugular vein (EJV) under these circumstances with relative ease [Figure 1]. On the two occasions, EJV cannulation was achieved quickly. Furthermore, enough “backflow” was available to allow for venous blood gas assessment. Use of ultrasound guidance (USG) may also be beneficial to locate the vessel. In each of the two instances, the patients’ arms were covered with padding and adducted. In addition, extensive hospitalization, obesity, and IV drug abuse made localization for peripheral venous access, unobtainable; despite untucking of the patients’ arms and employing USG and infrared-based optical devices.

It should be noted that EJV pressures, in supine-positioned patients, have been utilized for volume status measurement and have been documented to correlate with internal jugular venous pressures.^[1] However, central venous pressure, measured from the internal jugular vein in the prone position, does not appear to correlate with measurements obtained using transesophageal



Figure 1: The external jugular vein should be considered when vascular access is required in prone-positioned patients

echo.^[2] Other devices, such as the esophageal Doppler monitor, have been reported for volume assessment and management in prone-positioned patients.^[3,4] The anesthesiologist should be aware of the availability of the EJV should the need arise to obtain IV access in those patients who are in the prone position.

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Conflicts of interest

There are no conflicts of interest.

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