
LETTER TO THE EDITOR

PREVENTION OF BLOOD RETURN INTO INTRAVENOUS INFUSION TUBING

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Letter to the Editor

Different techniques have been described to prevent return flow of the blood into an intravenous line when both the intravenous infusion and blood pressure cuff have to be placed in the same arm especially during orthopedic surgeries of the upper limbs and with patients in lateral position. Some of these techniques involve placement of the part of the tubing under the blood pressure cuff, which would then occlude when the pressure in the cuff goes up. However, having tried this technique, we found it not fully effective in preventing the regurgitation of blood into infusion tubing. The events may distract the anesthesiologist from maintaining full intraoperative monitoring of anesthesia delivery and patients' vital signs.

At our institution we use pressure bags to administer intravenous fluids at a faster rate. We decided to use these pressure bags in situations where the intravenous infusion is in the same arm as blood pressure cuff. Initially the pressure at which the return of blood into intravenous infusion tubing occurs is determined. The pressure in the pressure bag is subsequently raised 20-30mmHg above the pressure that results in no blood return. As such, the flow of the intravenous fluid can be controlled independently using the intravenous fluid controller. The counter pressure exerted by the pressure bag can be extremely useful in preventing return of blood and we suggest their use more widely as it is a very simple solution to a very old problem.

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