3. Schieble T, Patel A, Davidson M. Laryngeal mask airway (LMA) artefact resulting in MRI misdiagnosis. Pediatr Radiol 2008;38:328-30.

4. Taxak S, Bhardwaj M, Gopinath A. The i-gel™ - A promising airway device for magnetic resonance imaging suite. J Anaesthesiol Clin Pharmacol 2012;28:263-4.

5. Agnoletti V, Piraccini E, Corso RM, Cittadini A, Maitan S, Della Rocca G, et al. Tracheal compression caused by oversized i-gel in children. Minerva Anestesiol 2013;79:107-8.

Sir,

Thank you for your comments [1] on our case report. [2] Your concerns are absolutely legitimate. Obviously you have extensive knowledge in quantifying platelet function and percentage inhibition of various clotting components. We surely agree with you that thrombelastography (TEG)-platelet mapping may be a better option than the "Regular TEG" for its assessment of percentage contribution to platelet inhibition of individual agent and overall platelet function. However, there are only limited studies supporting the use of platelet mapping following clopidogrel[3] and the insensitiveness of the "Regular TEG" to aspirin and clopidogrel is not good for prevention of thrombotic events[4], but may not necessarily be bad for guiding the epidural catheter removal as long as it indicates reasonably acceptable clotting function. Also the accessibility to TEG platelet mapping can also be an issue in many medical facilities. The overall platelet function at the point of testing is more important than individual percentage contribution of platelet inhibition by individual agent, though our tests may not detect the unresponsiveness of platelets to aspirin or clopidogrel. We reported this case to document the fact this patient had his epidural catheter safely removed 72 h after he received single dose of dual antiplatelet agents, and the normal TEG and platelet function analysis parameters served two functions: Indicating reasonable safety of catheter removal and as indicators that we did not neglect the bleeding tendency medicolegally. Thanks again for your comments.

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References
1. Hemlata, Anupam Verma, Priti Elhence. Mapping the antiplatelets effects of clopidogrel and aspirin by modified thromboelastography. J Anaesthesiol Clin Pharmacol 2013;29:421-22.
2. Glenn E, Mehl J, Rosinia FA, Liu H. Safe removal of an epidural catheter 72 hours after clopidogrel and aspirin administrations guided by platelet function analysis and thromboelastography. J Anaesthesiol Clin Pharmacol. 2013;29:99-101. doi: 10.4103/0970-9185.105813.
3. http://www.mayomedicallaboratories.com/articles/hottopics/transcripts/2011/12-plavix/21.html.
4. Hobson AR, Agarwala RA, Swallow RA, Dawkins KD, Curzen NP. Thrombelastography: Current clinical applications and its potential role in interventional cardiology. Platelets 2006;17:509-18.

Fatal mediastinal hematoma following right internal jugular vein cannulation

Sir,

The insertion of central venous catheters (CVCs) is an invasive procedure associated with complications like pneumothorax, carotid artery puncture, dysrhythmias, infection, and thrombosis. We report a case of mediastinal hematoma caused by insertion of CVC in the right internal jugular vein (IJV).

A 50-year-old, American Society of Anesthesiologists class II, male patient, diagnosed case of intestinal perforation with pulse rate 130/min, blood pressure 100/60 mm Hg, and respiratory rate 28/min presented for emergency laparotomy under general anesthesia. Right IJV cannulation was attempted...
by using a 24 G finder needle but the carotid artery was punctured, needle was withdrawn, and compression applied for 5 min. On second attempt, IJV was punctured and then cannulated using 16 G needle with seldinger’s technique. Slight resistance to guide wire insertion was encountered which was corrected by slightly withdrawing it. The CVC was easily advanced up to 12 cm and secured. Opening central venous pressure (CVP) was 10 mm of Hg. During the intraoperative period, the hemodynamic parameters of the patient deteriorated to a heart rate of 120 bpm; intra arterial blood pressure - 80/40 mm Hg; and SpO₂ 99%. Dopamine infusion was started at 5 μg/kg/min. After around 20 min, the arterial oxygen saturation gradually decreased to 94% at a FiO₂ of 1.0. Air entry was decreased bilaterally and more so on the right side. Suspecting pneumothorax a right-sided intercostal drain was inserted and the hemodynamics improved. After about 10-15 min intra-arterial blood pressure fell again to 80/40 mm Hg and the SpO₂ hovered around 90%-94% on a FiO₂ of 1. Another chest drain was inserted posteriorly on the right side and 20-30 mL of blood drained out. Chest radiograph showed widened mediastinum with the right lung being pushed to the ipsilateral side and the tip of catheter lying in the midline at the level of fifth thoracic vertebra [Figure 1]. Patient was transferred to intensive care unit and volume resuscitation achieved using peripheral cannulae. Transthoracic echocardiography revealed minimal pericardial effusion; however, a computed tomography scan could not be carried out as the patient was hemodynamically unstable. Percutaneous thoracostomy was done and approximately 200 mL of blood drained and the patient showed transient signs of improvement. However, the patient deteriorated again and expired after a few hours despite high-quality resuscitation.

Carotid artery trauma has been reported in 6%-25% of patients, following landmark-based internal jugular venous cannulations. In our case, it is likely that the carotid artery was punctured by the finder needle, which might have led to mediastinal hematoma, due to the coexisting risk factors viz., severe dehydration, emergency surgery, operator inexperience, and coagulopathy. Another mechanism of the hematoma formation could be ascribed to the guide wire insertion in which we faced slight resistance. It might have penetrated the vessel wall/atrial wall and subsequent leakage of blood led to the mediastinal hematoma. A delay in diagnosis occurred due to confounding differentials like pneumothorax, hypovolemia, and so on.

In conclusion, the best way to prevent complications like arterial perforations is to use ultrasonography or Doppler guidance.

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References
1. Oliver WC Jr, Nuttall GA, Beynen FM, Raimundo HS, Abenstein JP, Arnold JJ. The incidence of artery puncture with central venous cannulation using a modified technique for detection and prevention of arterial cannulation. J Cardiothorac Vasc Anesth 1997;11:851-5.
2. Schummer W, Schummer C, Fröber R. Internal jugular vein and anatomic relationship at the root of the neck. Anesth Analg 2003;96:1540;author reply 1540-1.
3. Rajinikanth J, Stephen E, Agarwal S. Complication of central venous cannulation. Can J Surg 2008;51: E113-4.
4. Hohlrieder M, Oberhammer R, Lorenz IH, Margreiter J, Kübbacher G, Keller C. Life-threatening mediastinal hematoma caused by extravascular infusion through a triple-lumen central venous catheter. Anaesth Analg 2004;99:31-5.
5. Gupta P, Guleria S, Sharma S. Mediastinal Haematoma: A rare complication following insertion of central venous catheter. Indian J Chest Dis Allied Sci 2011;53:225-8.