

LETTER TO EDITOR**ARTERIAL CANULATION-COMMON BUT CATASTROPHIC COMPLICATION OF IJV CANULATION****Kunta Srinivasulu, Nikhil Mudgalkar**

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Sir,

Internal jugular cannulation though common and simple procedure, can cause arterial cannulation in 1% of cases. Ultrasound imaging while performing cannulation and pressure monitoring of cannulated vessel are common methods to prevent the complication. Currently both methods are recommended measures while performing IJ cannulation. If the complication occurs, immediate removal of catheter/guide wire and pressure can give valuable time to obtain vascular surgeon consultation for repair.

Internal jugular cannulation is one of the most commonly performed procedures in Intensive care units worldwide. The procedure is not without risks with arterial puncture and cannulation being one of the most important hazards. The incidences of this risk factor is found to be around 0.1 to 1%,¹ according to various reports. Puncture by small locator needle happens in around 6% of cases, but as the smaller bore needle, harm is much less². The problem is compounded if it is not recognized in time and introducer sheath or catheter is pushed inside the artery.

Ultrasound imaging is one simple, inexpensive way to reduce the complication. Ultrasound imaging allows the presence of the internal jugular vein (IJV) to be confirmed, its patency can be demonstrated, and its anatomical relationship to the carotid artery can be

defined. Presently ultrasound guided insertion is preferred method³. Second method is pressure monitoring of the cannulated vein. Automated digital pressure monitoring devices are currently available to measure the pressure inside the vessel. Prevention of arterial cannulation though paramount important, possibility is there to still have it.

There are no established guidelines for the treatment. First and foremost treatment is removal of catheter and pressure, surgical repair and endovascular intervention may have better effects as shown by current studies.⁴

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