***Cite this as*:** Wen-qiao YU, Yun ZHANG, Shao-yang ZHANG, Zhong-yan LIANG, Shui-qiao FU, Jia XU, Ting-bo LIANG, 2015. Impact of misplaced subclavian vein catheter into jugular vein on transpulmonary thermodilution measurement variables. *Journal of Zhejiang University-Science B (Biomedicine & Biotechnology)*, **17**(1):60-67. [doi:10.1631/jzus.B1500167]

Impact of misplaced subclavian vein catheter into jugular vein on transpulmonary thermodilution measurement variables

Key words: Transpulmonary thermodilution, Jugular vein catheter, Misplaced subclavian vein catheter, Severe acute pancreatitis

Research Summary

This study mainly focused on the Impact of misplaced subclavian vein catheter into jugular vein on transpulmonary thermodilution measurement variables which contain CI, GEDVI, ITBVI and ELWI.

- **Misplaced subclavian vein catheter into jugular vein →**
- **Impact on TPTD measurements**
- **Impact on clinical decision making**

Innovation points

- **Introduction:** **the SCV catheter being misplaced into IJV is common occurrence, and whether the misplaced catheter affect the TPTD measurements is unknown. The present study explores the influence of a misplaced SCV catheter on TPTD variables.**

- **Summary** **13 SAP patients who had a misplaced SCV catheter were enrolled, and TPTD was implemented through misplaced SCV catheter and correct catheter respectively. The TPTD variables include CI, GEDVI,ITBVI and ELWI were compared. The results showed that GEDVI and ITBVI were overestimated through the incorrect catheter, however, there were no significant influence on CI and ELWI.**

- **Emphasis:** **The malposition of a SCV catheter does influence the accuracy of TPTD variables, especially GEDVI and ITBVI. The position of the SCV catheter should be confirmed by chest X-ray in order to make good use of the TPTD measurements**.