



RS Premier
Bintaro

Misplacement of central venous catheter into Internal Jugular vein through Axillary and Subclavian cannulation:

How can head rotation and arm elevation help?

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Background

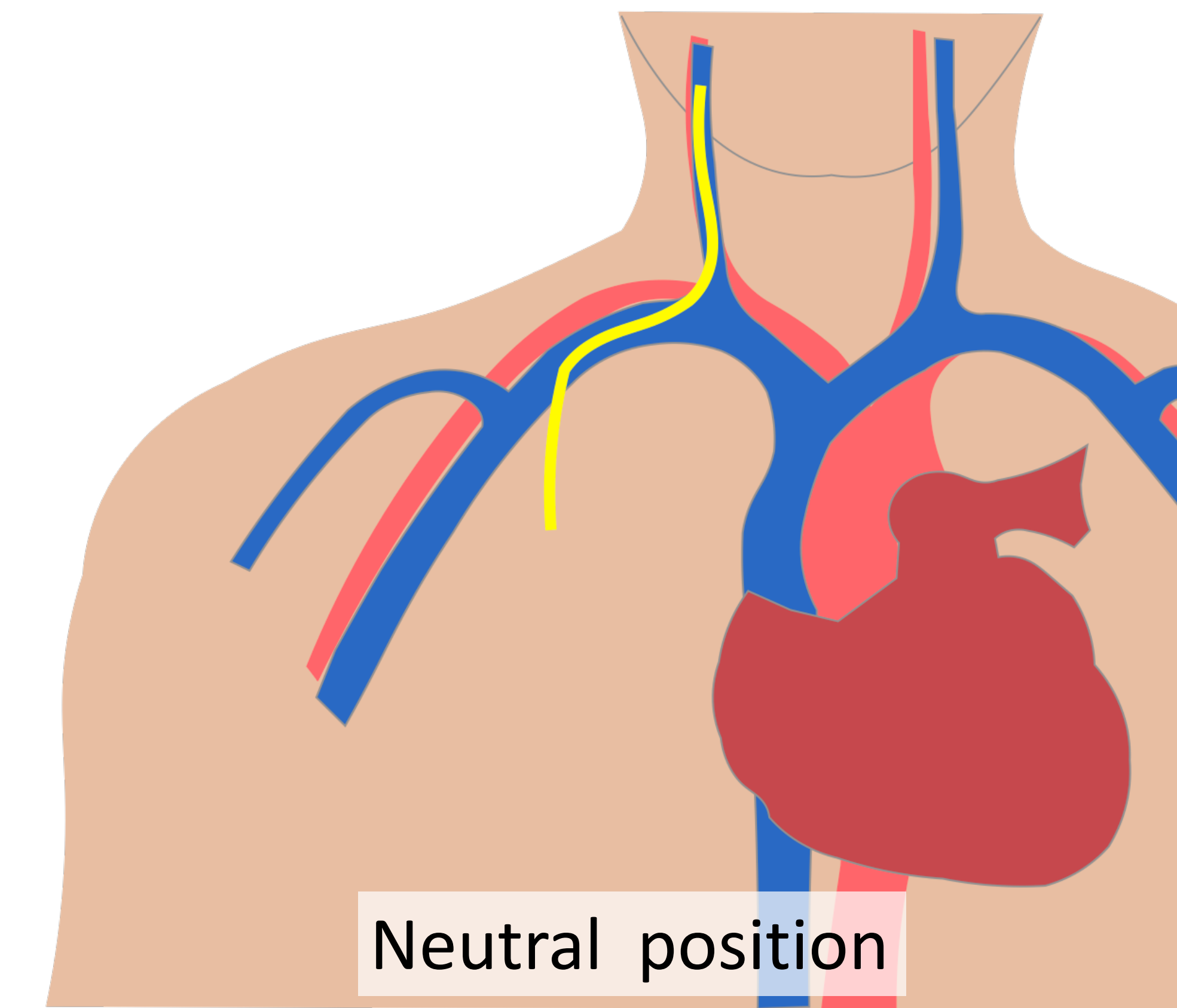
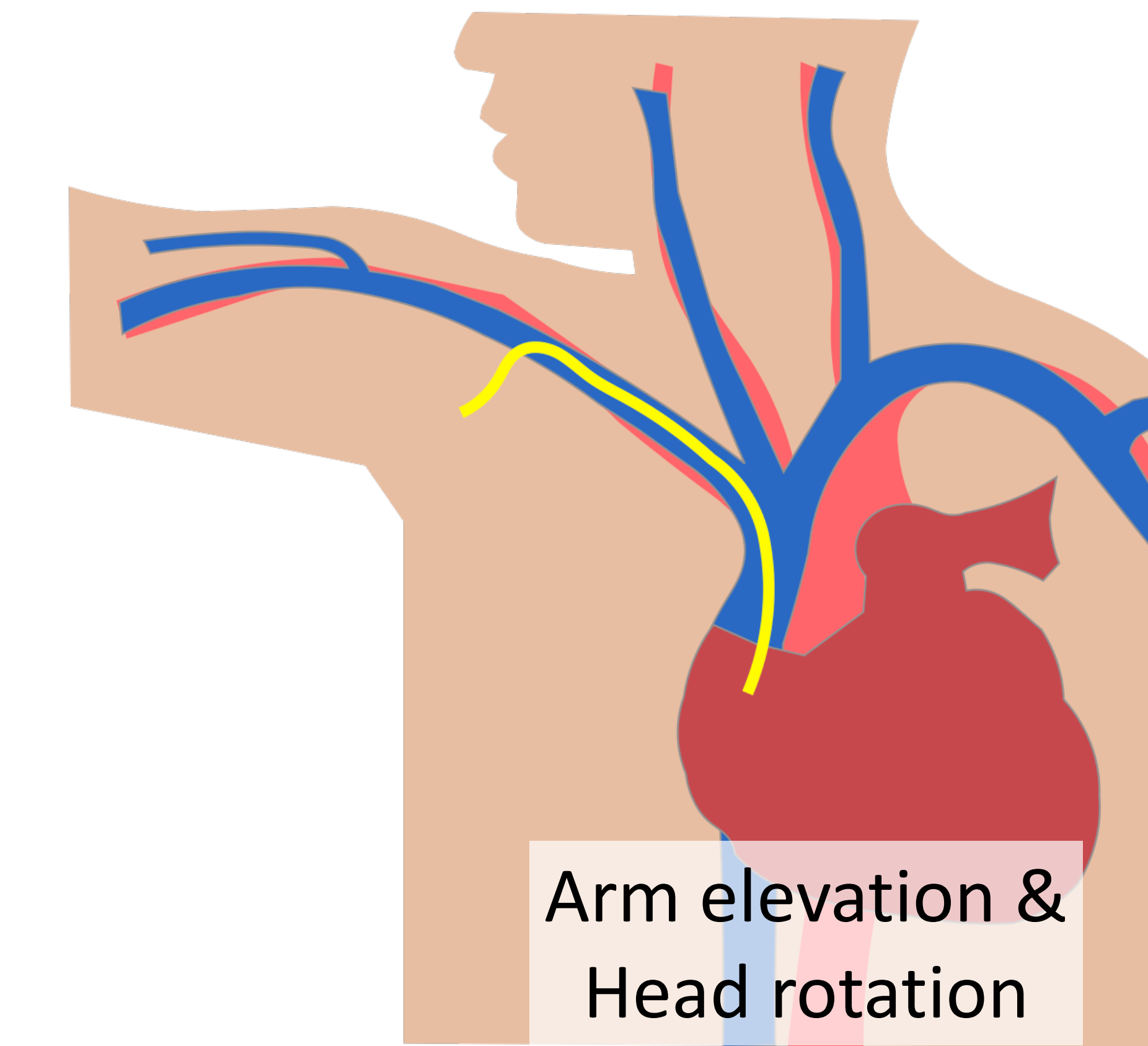
Axillary dan subclavian approaches remain as some alternatives for central venous catheter (CVC) placement. According to our previous study, those approaches had higher tendency for internal jugular vein (IJV) misplacement. Many have proposed techniques to reduce the risk and amend this misplacement. This study aimed to determine the efficacy of head rotation and arm elevation to correct CVC misplacement to IJV.

Method

This was a retrospective study conducted at Critical Care Unit in Premier Bintaro Hospital, Indonesia. The data were collected from the electronic medical record from January 2020 to October 2021. The inclusion criteria were adult patients, age 18 years old and above, had CVC inserted through axillary vein or subclavian vein, and experienced catheter misplacement to IJV which was visualized by neck ultrasound. When misplacement was found, head rotation and arm elevation were performed to fix this issue. Procedure evaluation through ultrasound and chest x-ray were also recorded to determine the success of this maneuver.

Result

A total of 22 catheter misplacement cases were recorded during the period. Following head rotation and arm elevation maneuver, there were 15 successful cases (68.2%) with no visible wire or catheter on neck ultrasound or chest x-ray afterwards.



Conclusion

Head rotation and arm elevation maneuver had successfully corrected more than half of CVC misplacement with axillary and subclavian approaches.

Keywords : central venous catheter, misplacement

Reference:

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