



A comparison of the Easy IJ vs Internal Jugular Central Venous Line Placement (CVLP)

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Introduction

Intravenous access is critical for the treatment of most patients presenting to the Emergency Department, however obtaining a peripheral IV may prove to be difficult due to a variety of factors.

The Easy IJ has gained traction in the Emergency Department as a safe, quick and effective alternative to peripheral IV catheter placement.

Purpose

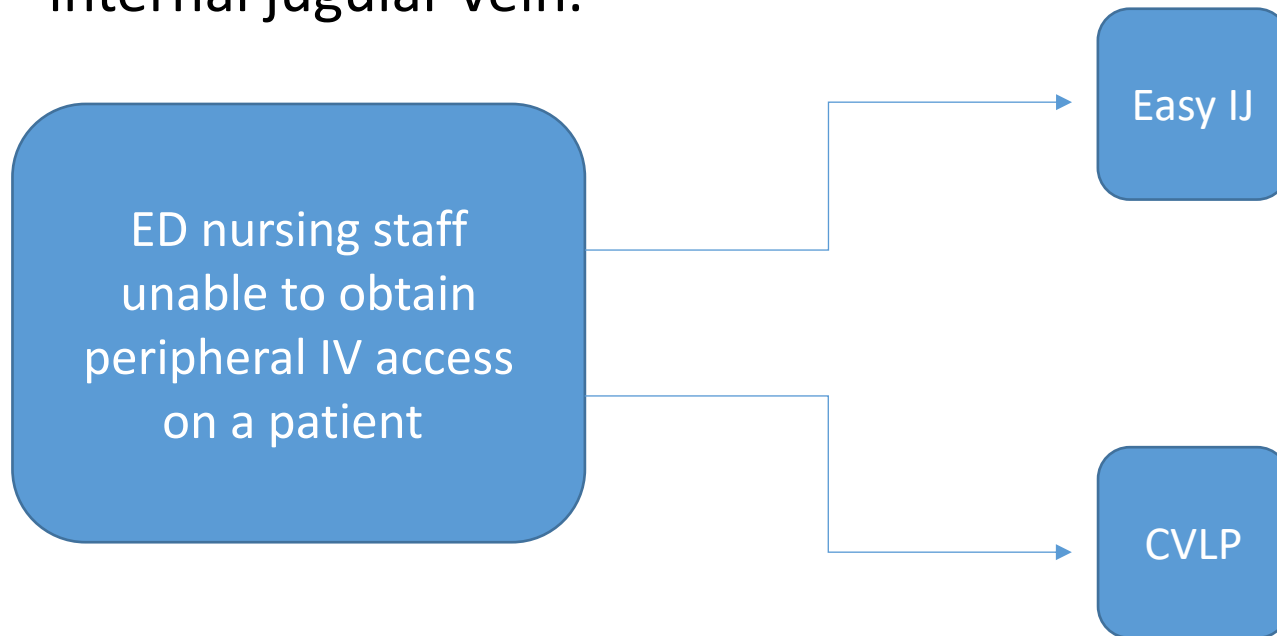
To assess the efficacy and safety of obtaining an ultrasound guided large bore internal jugular line with a short catheter (**Easy IJ**) as compared to traditional central venous line placement (**CVLP**) in the internal jugular vein under full sterile precautions.

The main outcome measures were time to completion of procedure and pain as perceived by the patient.

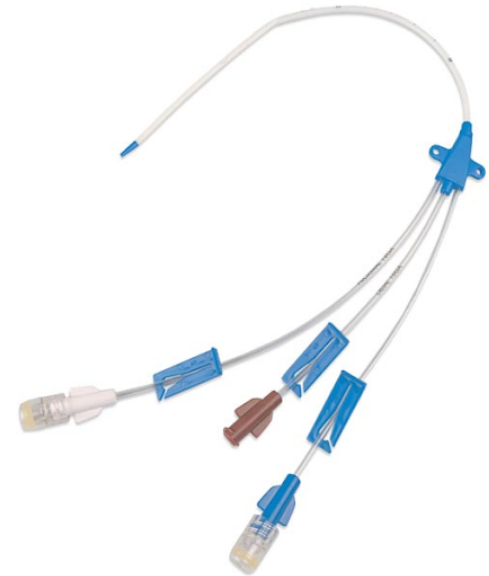
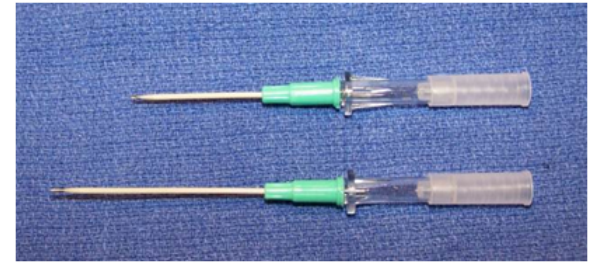
Secondary outcomes measures were complications rates, which included line failure, pneumothorax, and infection or hematoma at the placement site.

Methods

Single-center, prospective study of US-guided Easy IJ placement using a 48 mm, 18-gauge catheter compared to placement of a triple lumen central venous catheter into the internal jugular vein.



Materials



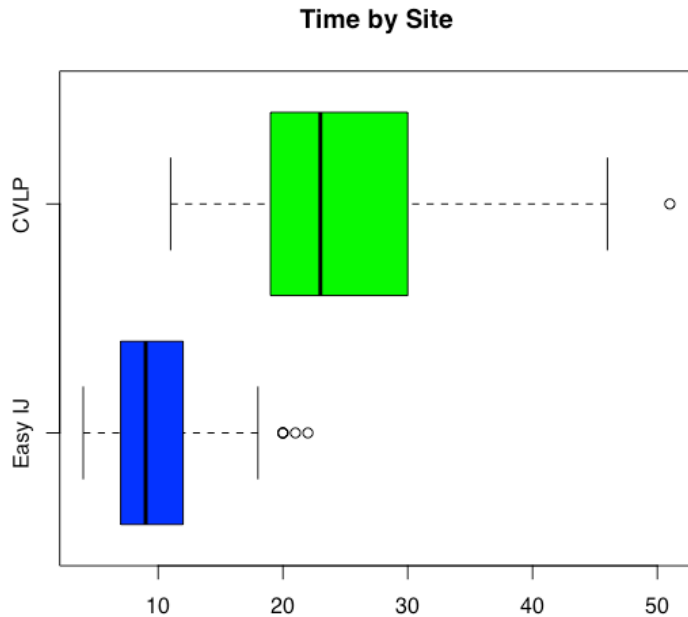
Technique



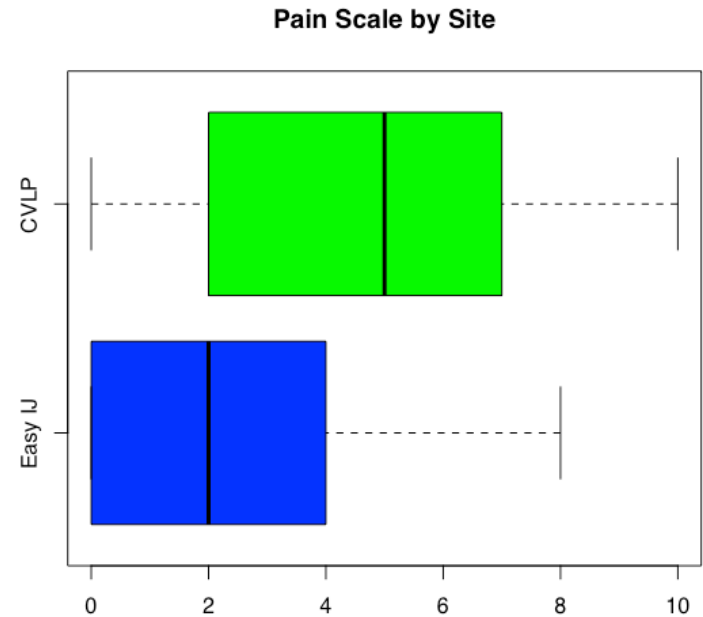


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Results



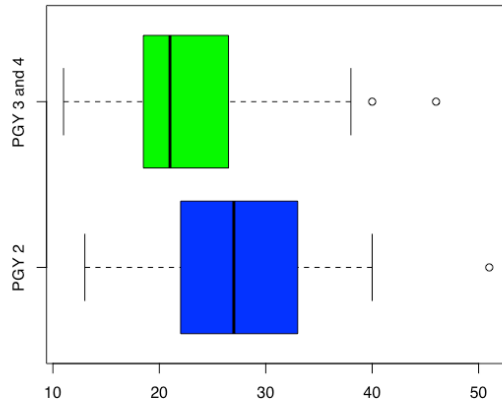
A t-test for the difference in means (one sided CVLP > Easy IJ) resulted in a p-value of 0.00.



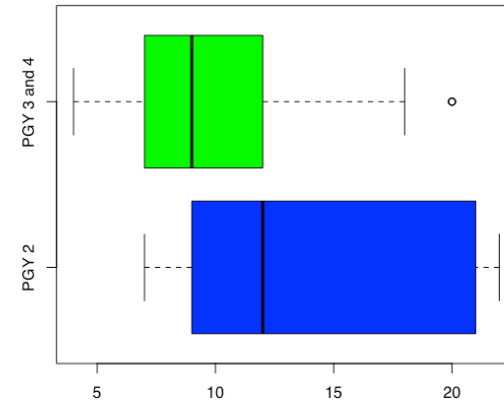
A Wilcoxon Rank Sum test for the difference in medians (one sided CVLP > IJUG) resulted in a p-value of 0.00.

Results

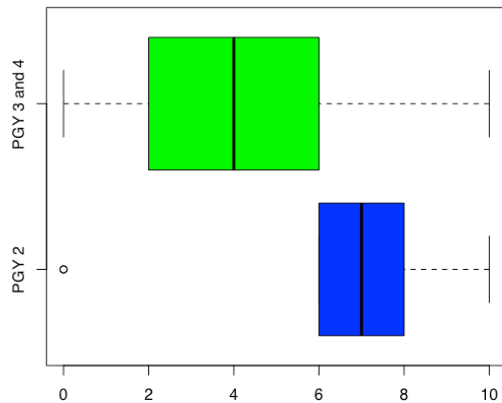
CVLP Time to Completion: PGY 2 versus PGY 3 and 4



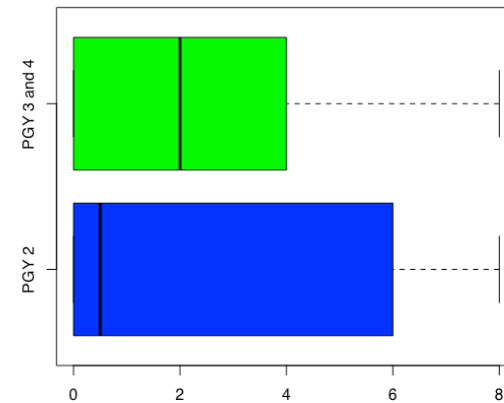
Easy IJ Time to Completion: PGY 2 versus PGY 3 and 4



CVLP Pain Scale: PGY 2 versus PGY 3 and 4



Easy IJ Pain Scale: PGY 2 versus PGY 3 and 4



Discussion

- No adverse events including pneumothorax, loss of patency, site hematoma or infection.
- Major findings and strengths of our study
- Limitations of the study and procedure

Conclusions

Our study substantiates the findings of prior research that the Easy IJ is a safe and effective means of gaining intravenous access in patients for whom attempts at peripheral IV access have failed.

Furthermore, this is a procedure that can be performed by novice EM physicians without increased risk of complication and with similar success rates when compared to more experienced EM physicians.

References

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