

Vascular gel model for central venous catheterization

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Background

Central venous catheterization provides a route for delivery of caustic or critical medications and allows measurement of central venous pressure. Ultrasound guide puncture is now recommended in central venous catheterization procedure. The purpose of this study is to describe an inexpensive material (gelatin, mucilin powder) and simple method to create ultrasound imaging models for the purpose of education and practice using, comparable with standard gel model

Method

60 non-experience trainees were included in study and subjected to two groups, homemade and standard gel model. Procedural times were collected and compare between the two groups.

Result

Homemade ultrasound phantom we produced contains two vessel lumens. The images obtained using the phantom were high reliance quality and comparable to standard gel model. When compare the two groups, time to complete procedure was no statistic significant ($p=0.957$)

Conclusion:

Homemade gel model can used as simulator in central venous catheterization for trainees and comparable to standard gel model.