Doppler ultrasound is recommended by international societies for preoperative vascular mapping in vascular access surgery” Germano et al (2019).

Abstract:

INTRODUCTION: Doppler ultrasound is recommended by international societies for preoperative vascular mapping in vascular access surgery. Literature is scarce regarding data on Doppler ultrasound-associated errors.

OBJECTIVES: Our aim was to evaluate Doppler ultrasound precision for upper limb vascular mapping.

METHODS: Fifty-two adult healthy volunteers were evaluated for superficial vein diameter, brachial artery flow and diameter in the lower third of non-dominant arm by a dedicated vascular access radiologist blinded for the identification of the participants. Each participant was scheduled for three evaluations one week apart. Friedman test and multivariate analysis of variance for repeated measures were used.

RESULTS: There were no statistical differences within subjects across the three weeks except for brachial artery flow in participants who had basilic vein as the dominant vein.

DISCUSSION: Repeated anatomical and haemodynamic parameters measured by Doppler
ultrasound performed by an experienced medical sonographer, according to our protocol, did not show statistical differences within subjects, independently of age, gender and body mass index.

You may also be interested in...

- Review of ultrasound-guided vascular access in critical illness
- AIUM practice parameter for the use of ultrasound to guide vascular access procedures
- Nurse-led ultrasound-enhanced vascular access preservation program

Reference: