



Duplex ultrasound vein mapping (DUVM) may increase autogenous dialysis access procedures but has not been universally adopted by surgeons” Sharma et al (2018).

Abstract:

BACKGROUND: Duplex ultrasound vein mapping (DUVM) may increase autogenous dialysis access procedures but has not been universally adopted by surgeons.

METHODS: We determined reliability and accuracy of arm vein measurements on physical examination (PE) and DUVM, compared to direct measurements in the operating room (OR, gold standard). Operative plans were developed from each set of measurements and we evaluated which approach identified more options for autogenous procedures.

RESULTS: Vein diameters measured on DUVM correlated well with OR measurements but those made on PE did not. Autogenous access options were identified in 34.8% of patients based on PE and in 96.6% based on their DUVM. The 6-month primary-patency was 86.4%; assisted primary-patency was 89.8%.

CONCLUSIONS: Duplex ultrasound vein mapping is more reliable and accurate for assessing arm vein anatomy than physical examination. It identifies more autogenous options than physical-examination alone. It is essential for the preoperative evaluation for dialysis access.

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Reference:

Sharma, J., Dosi, G., Ayers, J.D., Padberg, F.T. Jr., Pappas, P.J. and Lal, B.K. (2018) Reliability and accuracy of duplex ultrasound vein mapping for dialysis access. American Journal of Surgery. December 14th. .

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