

Comparison of sonography with venography in the diagnosis of deep venous thrombosis

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Abstract:

Objective: To compare the findings of venous sonography with contrast venography in the detection of deep venous thrombosis (DVT) of the lower limbs. **Design:** Prospective study. **Setting:** The Kenyatta National Hospital, a teaching and referral hospital in Nairobi. **Subjects:** Fifty five limbs in 44 patients with clinical suspicion of DVT were evaluated during the seven months study period (October 2002-April 2003). The ethics committee in the institution granted approval for the study and participants gave written informed consent. **Intervention:** Venous sonography in which a three step protocol involving B-mode gray scale compression sonography, colour and colour Doppler sonography was obtained after contrast venography in patients with clinical suspicion of DVT. The ultrasound examination was done within 24 hours of the contrast venogram. **Results:** The overall sensitivity of venous sonography was 88.9%, specificity 91.8% and accuracy 90.9%. Considering only DVT above the calf, the sensitivity improved to 100%. An alternative diagnosis was found by ultrasound in 48.6% of the negative for DVT cases. **Conclusion:** The accuracy of venous sonography as done locally is high and comparable to that in developed countries. We recommend that for patients with clinical suspicion of DVT, venous sonography be done as the initial imaging investigation and venography be reserved for those patients with equivocal or inadequate sonography results.