

Radionuclide venography of lower limbs by subcutaneous injection: Comparison with venography by intravenous injection

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We have proved that subcutaneous injection (SC) of a small dose of Tc-99m pertechnetate (1 to 2 mCi: 37 to 74 MBq) at acupuncture points (K-3 and B-60) may offer an alternative method of radionuclide venography (RNV) of the lower limbs. In this study, we compared intravenous (IV) RNV and SC-RNV in 22 consecutive cases with typical signs and symptoms suggesting venous abnormality of the lower limb(s) from March to May 1988. They are 11 male and 11 female, aged 47.7 ± 15.7 years.

Among the 44 limbs of the 22 cases, 4 were normal, 12 (27.3%) were found to have varicose veins in the legs only, 18 (40.9%) had partial stenosis of the deep veins (14 poplito-tibial and 4 superficial femoral), and 13 (29.6%) had complete stenosis of the deep veins (4 poplito-tibial, 1 superficial femoral and 8 ilio-femoral). SC-RNV showed almost the same results as IV-RNV in 21 (47.7%), superior to IV-RNV in 22 (50%) (including 4.6% failure of IV-RNV), and inferior to IV-RNV in 1 (2.3%).

We conclude that SC-RNV is definitely an alternative method of lower-limb venography. Since it is in most cases superior to IV-RNV, we suggest that it can take the place of IV-RNV in routine work.

Key words: Radionuclide venography, Subcutaneous injection, Acupuncture points