Determination of Right and Left Ventricular Volume by Single-Photon Emission Computed Tomography


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Right ventricular and left ventricular volumes (RV and LV) were measured by ECG gated Single-Photon Emission Computed Tomography (SPECT).

Ventricular volumes were calculated from serial vertical long axial slices by counting up the number of voxels within the ventricle and multiplying them by the known volume of a voxel. From phantom studies, the voxels containing more than 45% of maximum ventricular counts were used as the ventricle. Volumes and ejection fractions (EF) calculated from SPECT were compared with these from contrast angiography. There were significant good correlations between the result of SPECT and contrast angiography.