**Supplementary data**

Myovation™ (GE Healthcare, Chicago, IL, USA), a dedicated cardiac application for Xeleris workstations, was employed to quantify 99mTc-DPD uptake in the myocardial tissue of left ventricles for the same cohort of patients. The resultant data was used to validate the results generated with OsiriX and its particular method of outlining uptake in the left ventricle.

For each patient an experienced nuclear medicine technologist defined the axes of the heart in Myovation™, which then determined the centre of uptake along the short axis of the heart automatically. Unlike OsiriX, Myovation™ generates a 17-segment parametric polar map of radiotracer uptake, which incorporates the tip of the apex in the 17th segment. As with OsiriX, sampling regions were one-voxel thick.

Although a strong correlation between the results of both methods was found (*p* < 0.001), in 27 cases (12.6 %), representing the images of ten grade-1 patients (13.5 %), the Myovation™ approach to quantifying uptake in the left ventricle could not process the data due to insufficient numbers of counts. The OsiriX method did not suffer from this drawback as it benefitted from manual drawing tools. However, despite both techniques measuring counts from the same anatomical region, the OsiriX method consistently produced results smaller than the Myovation™ method, as shown in Fig. 7.

Spatial resolution of SPECT images is an important factor in the context of precise quantitation (Fig. 8). The bias observed between the two datasets may be due to differences in interpolation settings, which could be altered in OsiriX but were unknown and unalterable in Myovation™.

Thus the OsiriX approach was considered superior for quantifying radiotracer uptake in the left ventricle.





**Fig. 7:** (a) A histogram of differences; (b) a Bland-Altman plot, where the solid and dashed lines represent the mean, µ, and µ ± (1.96 × σ) respectively. A bias between the results of the OsiriX and Myovation™ methods was found, where smaller values were always generated with OsiriX.



**Fig. 8**. 99mTc uptake visualized in OsiriX with (a) and without interpolation applied (b).