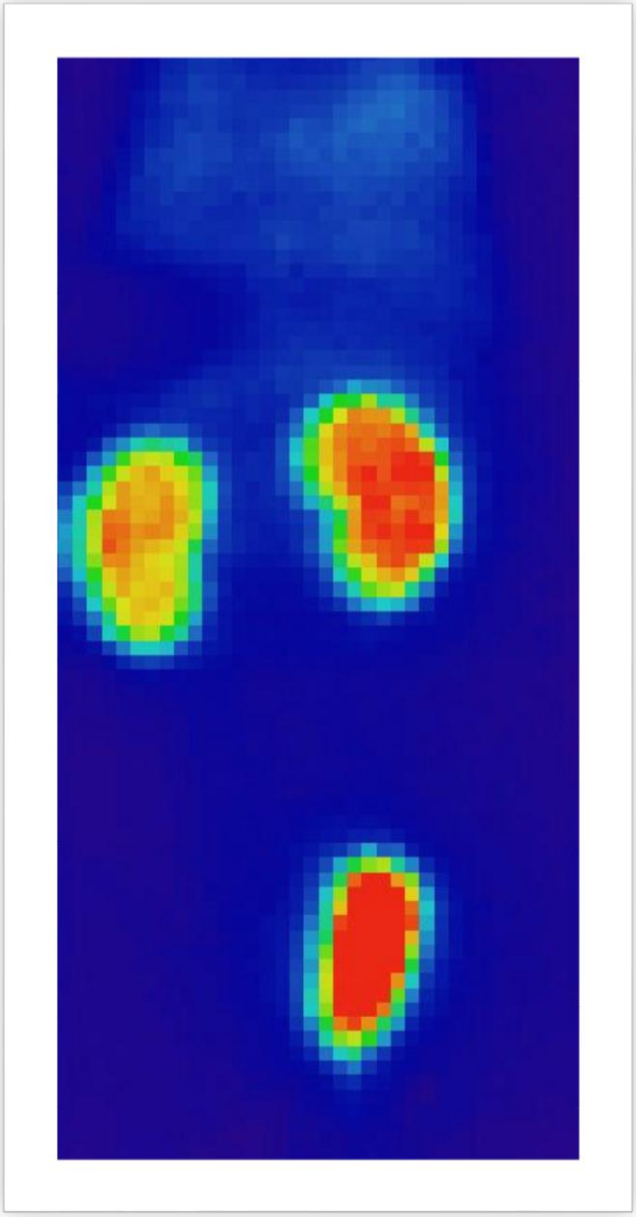

Tc-DMSA SPECT

RAT STUDY

HiReSPECT | Persian Gulf Nuclear Medicine Research Center | November 10, 2013

Planar Scan Results:

In this study, Dual-Head planar scan of Rat-Kidney was performed for about 5000 KC. To achieve a wide image that contains both of kidneys and cyst, Head Position was set to “Mice Scan”.

Figure 1 & 2 show scan results for each head, in 3 color mapping type. Also, Figure 1-c & 2-c indicate ROI selection for count and volume measurements in each head images.

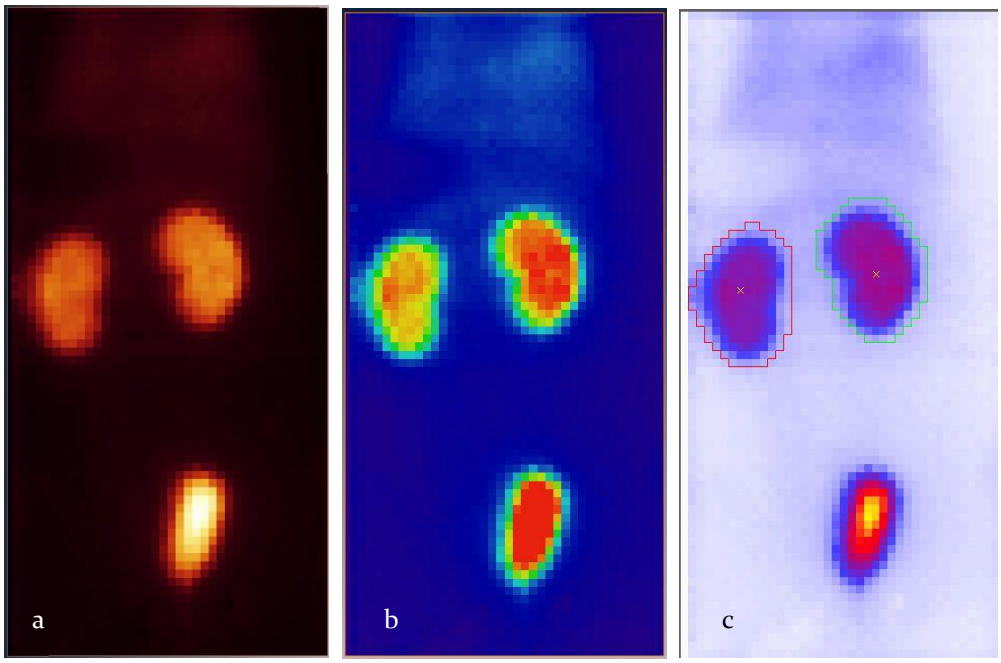

Figure 1. Scan results for head 1 in 3 color mapping type: a. Glow, b. Physics, c. Temperature

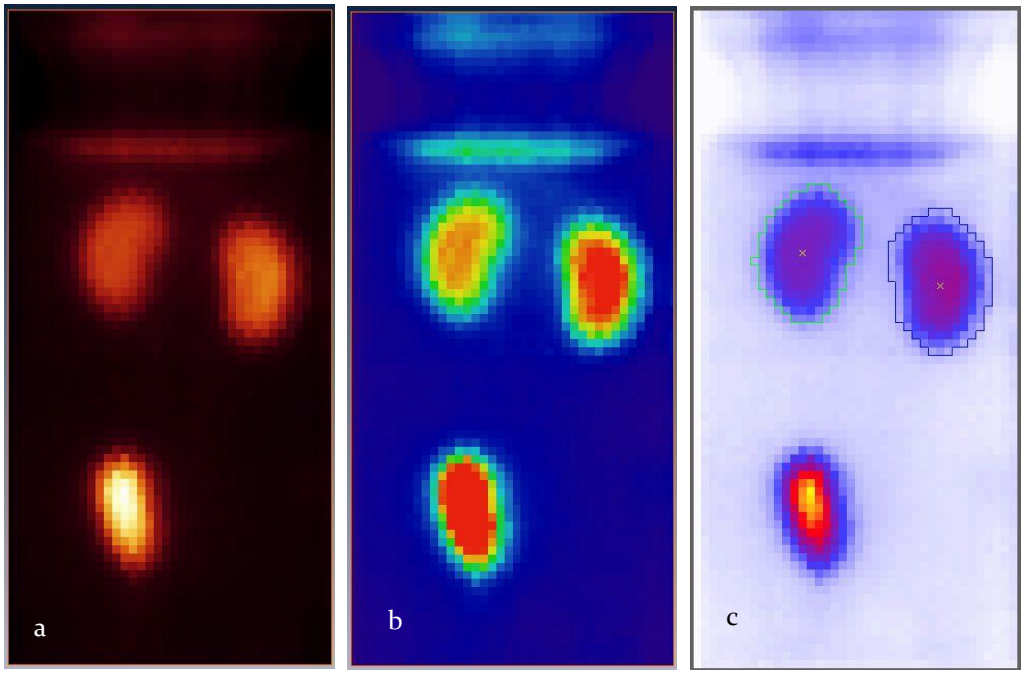

Figure 2. Scan results for head 2 in 3 color mapping type: a. Glow, b. Physics, c. Temperature

Table 1 shows measurement results for indicated selected area for each head. Note that left and right in this table refers to the position of each kidney in figure 1 & 2 (not to the position of them in Rat body).

Table 1. Results of count and volume measurements

Material	Volume	Mean	Min	Max	Cumulative Sum
Exterior-Head 1	2836	1214.98	0	15809	3445687
Left in head 1	177	4728.61	1313	8593	836964
Right in head 1	187	5350.52	1249	9280	1000548
Exterior-Head 2	2863	1346.75	0	18552	3855750
Left in head 2	162	5233.53	1765	8087	847832
Right in head 2	175	5608.25	1774	10106	981443

SPECT Results:

Figure 3 indicates 3D image of Dual head SPECT scan. Radius of rotation (ROR) was set to 50 mm and 360 degree per head selected for scan type. Scanning time per view was set to 60 sec for 60 views for each head. Decay compensation was selected from software's option to consideration of activity reduction during the scan process.

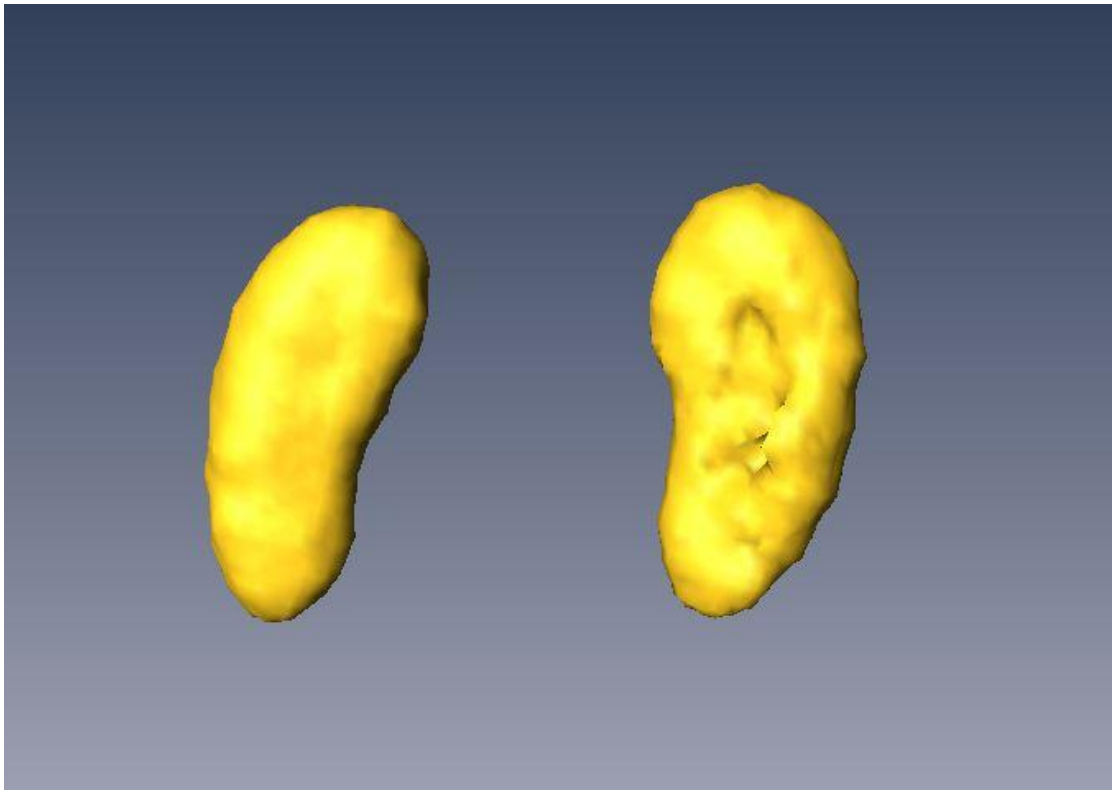

Figure 3. 3D image of Kidney SPECT