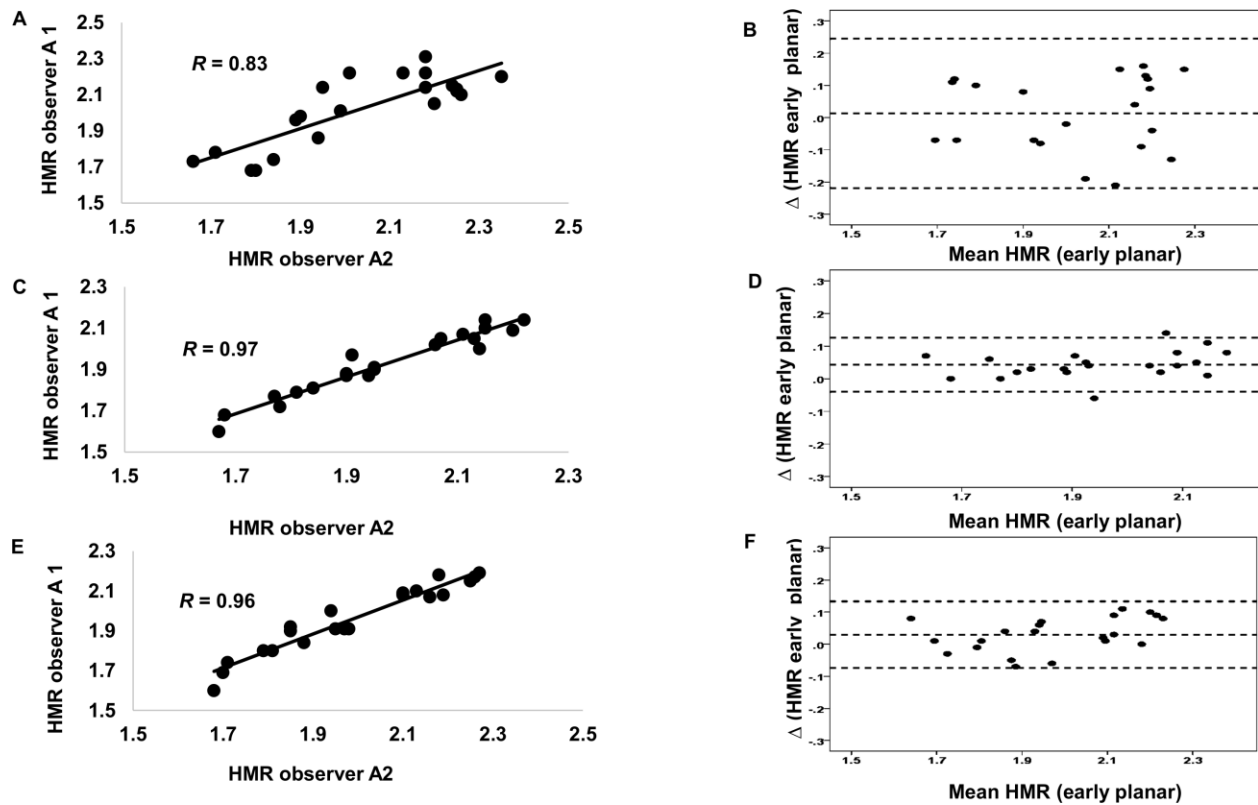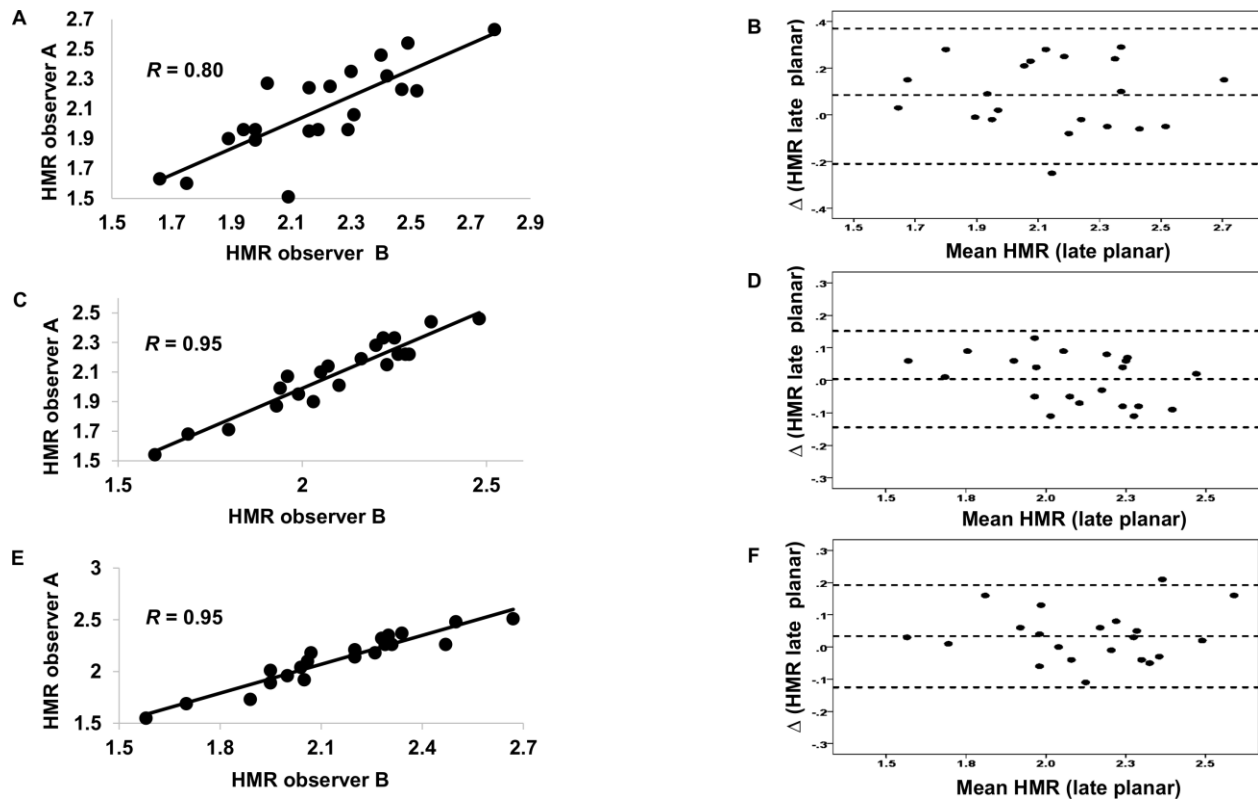**Supplemental Figure 1.** Intra-observer reproducibility (delayed images) for traditional method (A and B), elliptical ROI method (C and D) and region growing ROI method (E and F). (A,C,E) Linear correlations between two HMR measurements (*A1* and *A2*) from the same observer *A*. (B,D,F) Bland-Altman analyses with Mean ± SD (center dashed line) = 0.05 ± 0.15, 0.09 ± 0.07 and 0.02 ± 0.06 and with limit of agreement ranging from −0.25 to 0.35, −0.06 to 0.24 and −0.09 to 0.11, respectively.
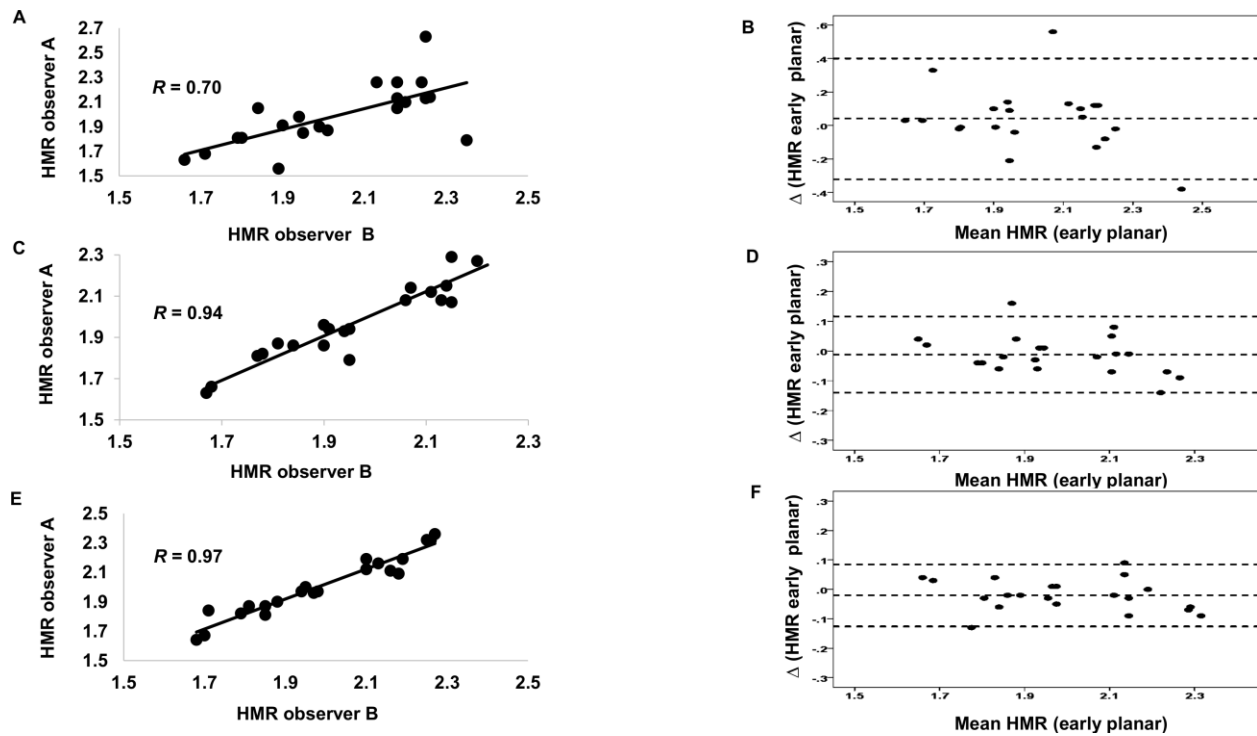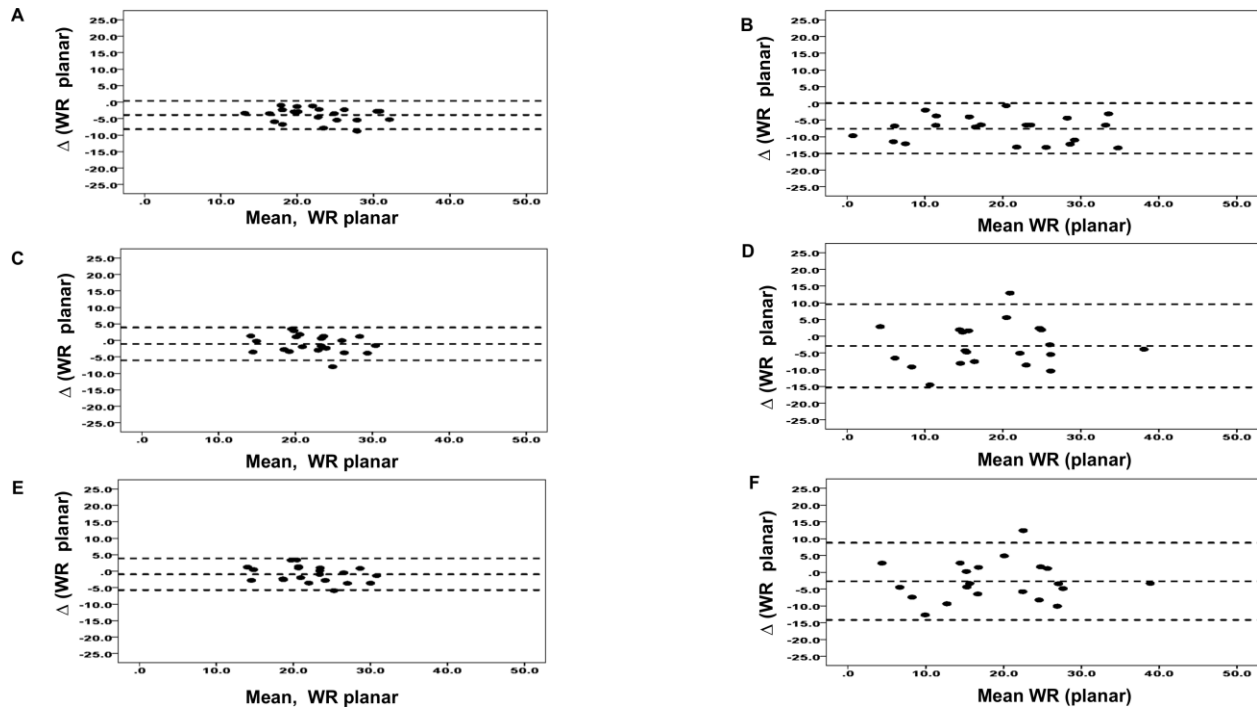
Supplemental Figure 2. Intra-observer reproducibility (early images) for traditional method (A and B), elliptical ROI method (C and D) and region growing ROI method (E and F). (A,C,E) Linear correlations between two HMR measurements (*A1* and *A2*) from same observer *A*. (B,D,F) Bland-Altman analyses with Mean ± SD (center dashed line) = 0.01 ± 0.12, 0.04 ± 0.04 and 0.03 ± 0.05 and with limit of agreement ranging from −0.22 to 0.25, −0.04 to 0.13 and −0.07 to 0.13, respectively.
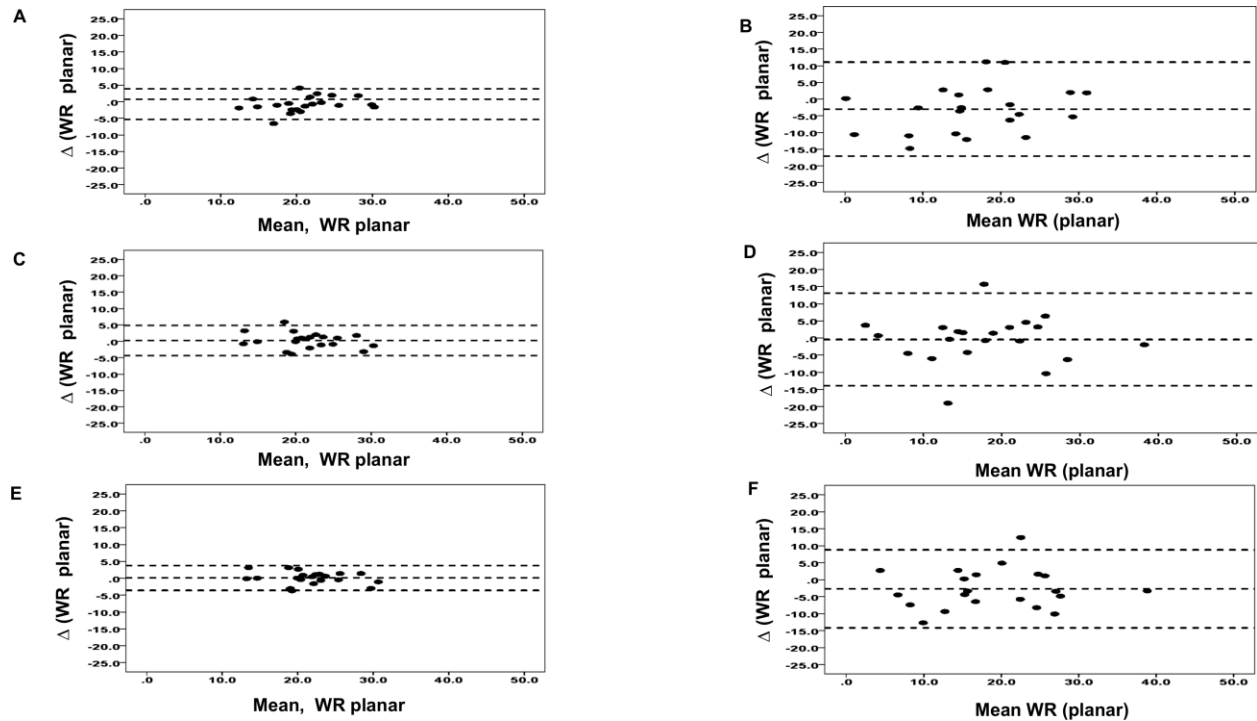
Supplemental Figure 3. Inter-observer reproducibility (delayed images) for traditional method (A and B), elliptical ROI method (C and D) and region growing ROI method (E and F). (A,C,E) Linear correlations between two measurements each by a different observer (*A* or *B*). (B,D,F) Bland-Altman analyses with Mean ± SD (center dashed line) = 0.08 ± 0.15, 0.004 ± 0.07 and 0.03 ± 0.08 and with limit of agreement ranging from −0.21 to 0.37, −0.14 to 0.15 and −0.13 to 0.19, respectively.
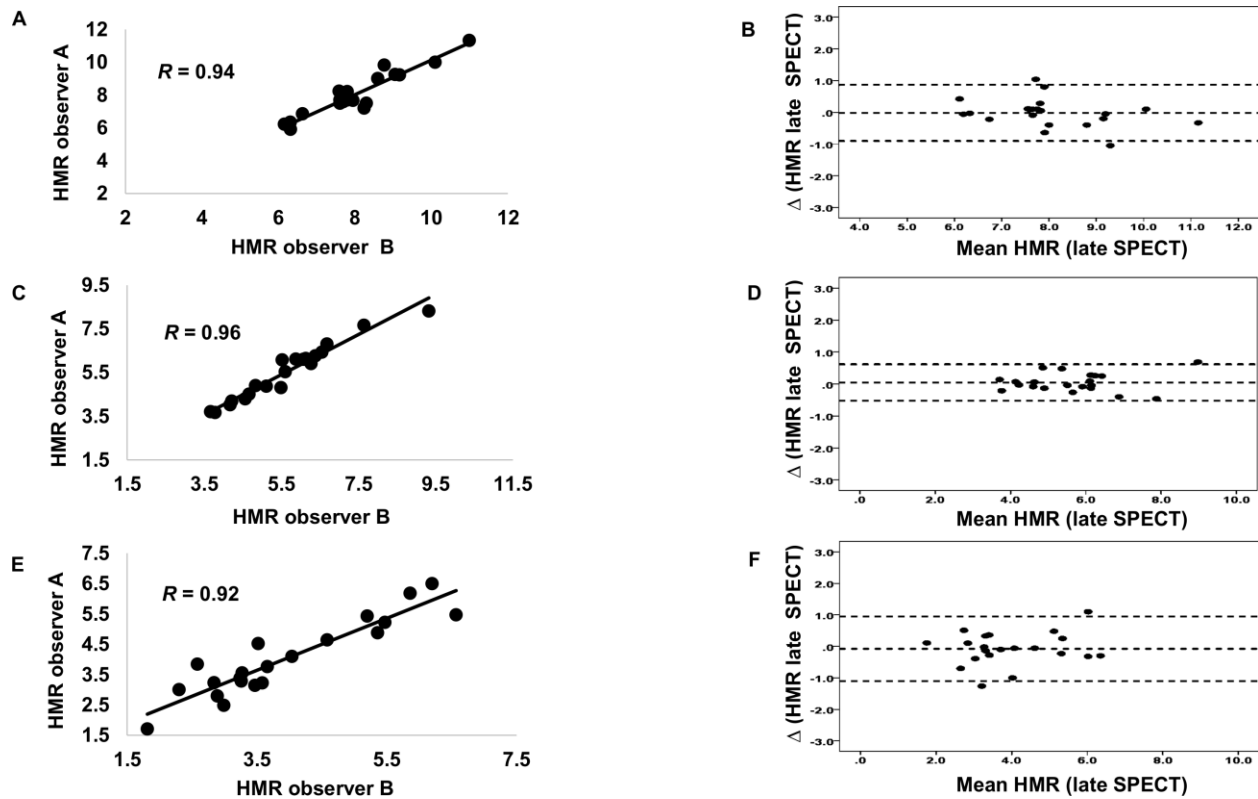
Supplemental Figure 4. Inter-observer reproducibility (early images) for traditional method (A and B), elliptical ROI method (C and D) and region growing ROI method (E and F). (A,C,E) Linear correlations between two measurements each by a different observer (*A* or *B*). (B,D,F) Bland-Altman analyses with Mean ± SD (center dashed line) = 0.04 ± 0.18, -0.01 ± 0.06 and -0.02 ± 0.05 and with limit of agreement ranging from −0.32 to 0.40, −0.14 to 0.12 and −0.12 to 0.08, respectively.

Supplemental Figure 5. Intra-observer reproducibility of WR quantified without (A,C,E) and with (B,D,F) background correction using traditional method (A and B) with Mean ± SD = -3.91 ± 2.18 and -7.65 ± 3.94 and with limits of agreement ranging from −8.18 to 0.36 and −15.4 to 0.07, respectively, elliptical ROI method (C and D) with Mean ± SD = -1.056 ± 2.78 and -2.87 ± 6.63 and with limits of agreement ranging from −6.48 to 4.37 and −15.3 to 9.63, respectively, and region growing method (E and F) with Mean ± SD = -0.90 ± 2.46 and -2.70 ± 5.88 and with limits of agreement ranging from −5.72 to 3.92 and −14.2 to 8.8, respectively.

Supplemental Figure 6. Inter-observer reproducibility of WR quantified without (A,C,E) and with (B,D,F) background correction using traditional method (A and B) with Mean ± SD = -0.73 ± 2.35 and -3.03 ± 7.19 and with limits of agreement ranging from −5.3 to 3.1 and −17.1 to 11.1, respectively, elliptical ROI method (C and D) with Mean ± SD = 0.26 ± 2.36 and -0.36 ± 7.42 and with limits of agreement ranging from −4.4 to 4.9 and −14.9 to 14.1, respectively, and region growing method (E and F) with Mean ± SD = 0.11 ± 1.88 and -0.42 ± 6.88 and with limits of agreement ranging from −3.6 to 3.8 and −13.9 to 13.1, respectively.

Supplemental Figure 7. Inter-observer reproducibility of SPECT-HMR (t = 180 min) quantified by HMR_{BKG-UM} (A and B), HMR_{BKG-LM} (C and D) and HMR_{BKG-CL} (E and F). (A,C,E) Linear correlations between two measurements each by a different observer (*A or B*). (B,D,F) Bland-Altman analyses with Means ± SD (center dashed line) = 0.02 ± 0.45, 0.11 ± 0.31 and -0.077 ± 0.52 and with limit of agreement ranging from −0.86 to 0.90, −0.50 to 0.72 and −1.1 to 0.95, respectively.