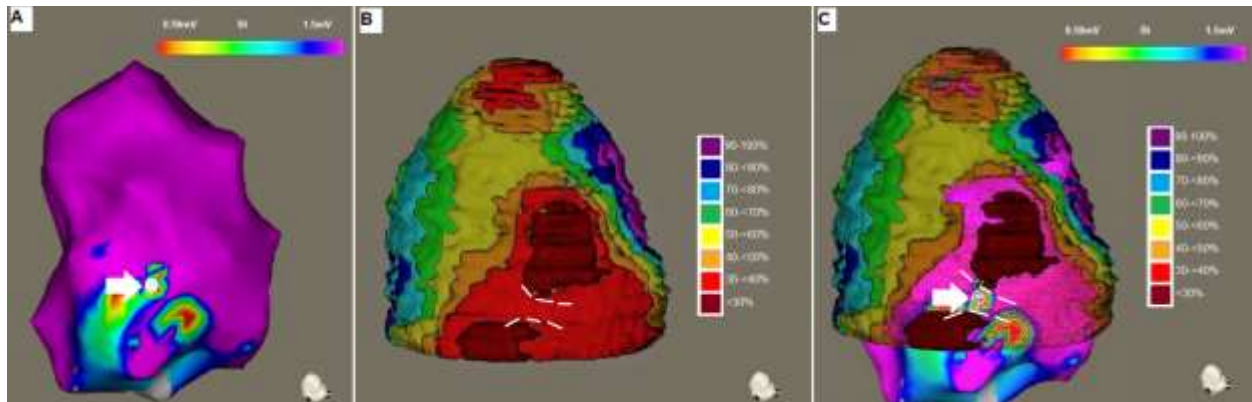


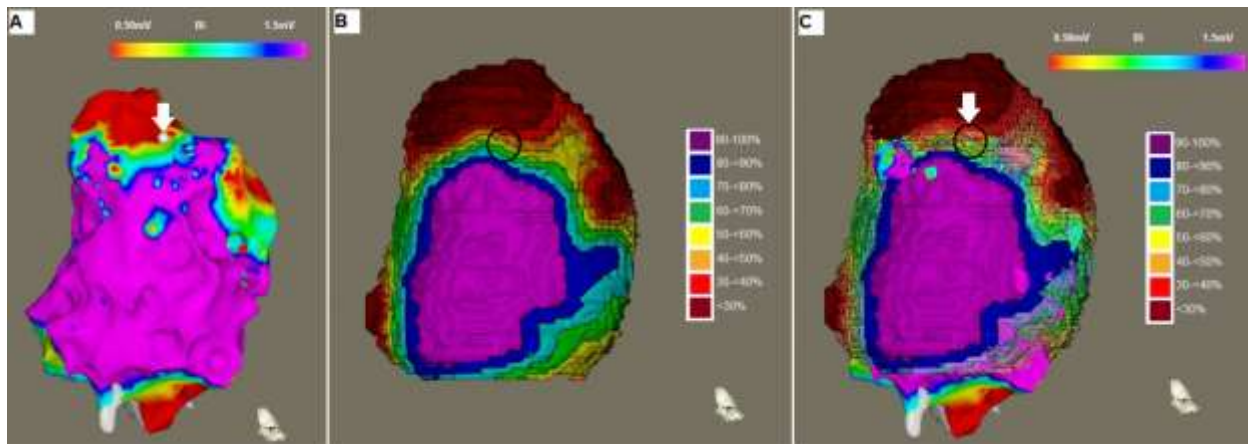
Supplemental Material – Figures

Supplemental Figure 1:



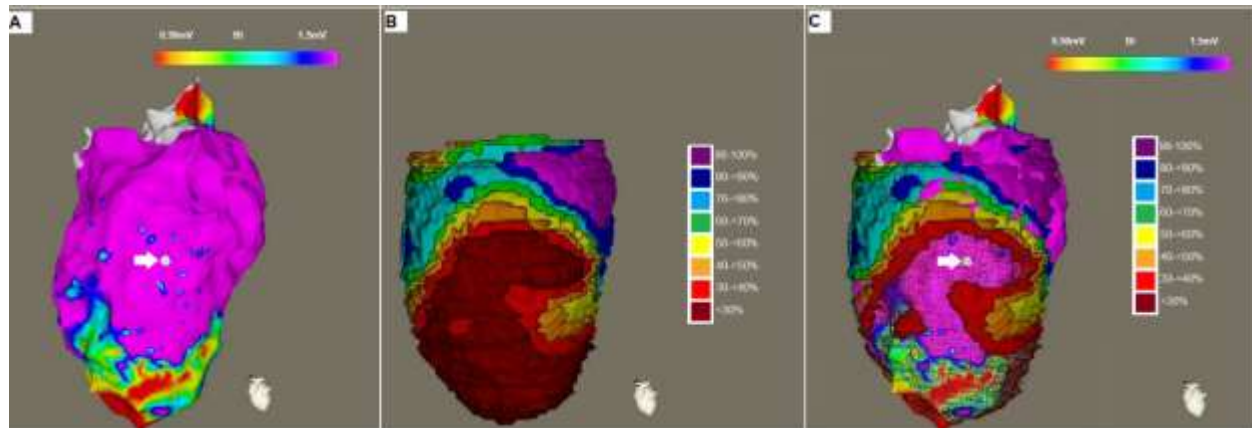
Metabolic Channel (additional example). (A) EAM shows inferior scar with 0.5-1.5mV settings and VT channel/exit site (white point and arrow). (B) Corresponding PET 3D reconstruction, showing metabolic channel (white dashed lines). (C) Co-registration of EAM and PET 3D reconstruction showing the VT exit /channel (arrow) within the metabolic channel (white dashed lines).

Supplemental Figure 2:



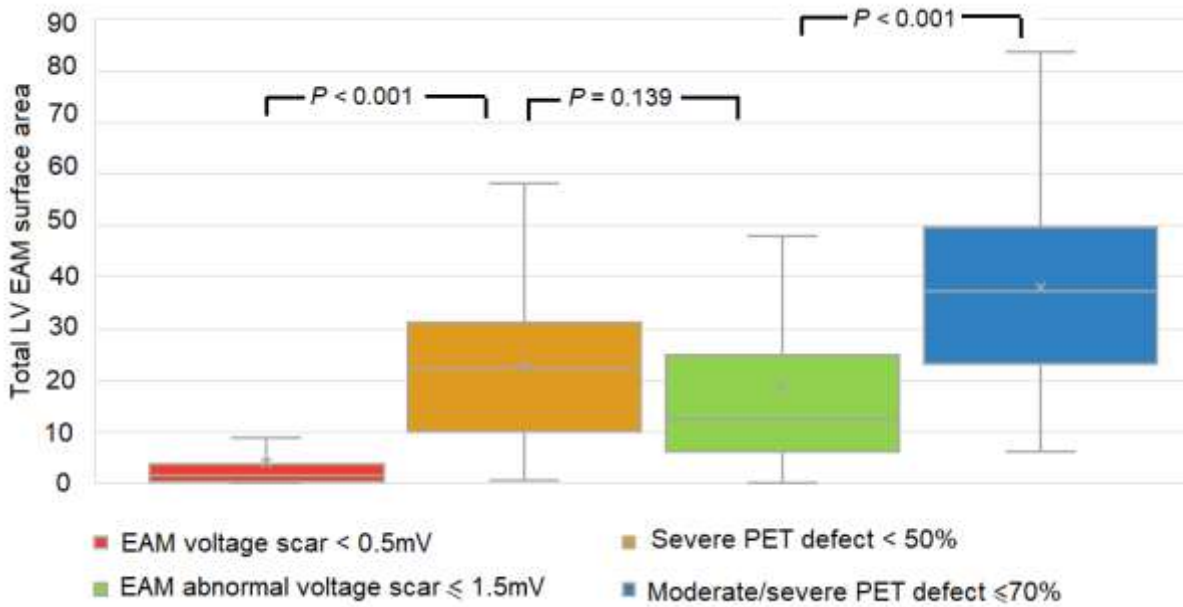
Rapid Transition Area (RTA; additional example). (A) EAM shows apical scar with 0.5-1.5mV settings and VT channel /exit site (white point and arrow). (B) PET 3D reconstruction demonstrating RTA (black circle, change of $\ge 50\%$ uptake/15mm {red to blue color shift}). (C) Co-registration shows the VT exit/ channel within RTA; the white arrow points to the VT channel/exit site within RTA (black circle).

Supplemental Figure 3:



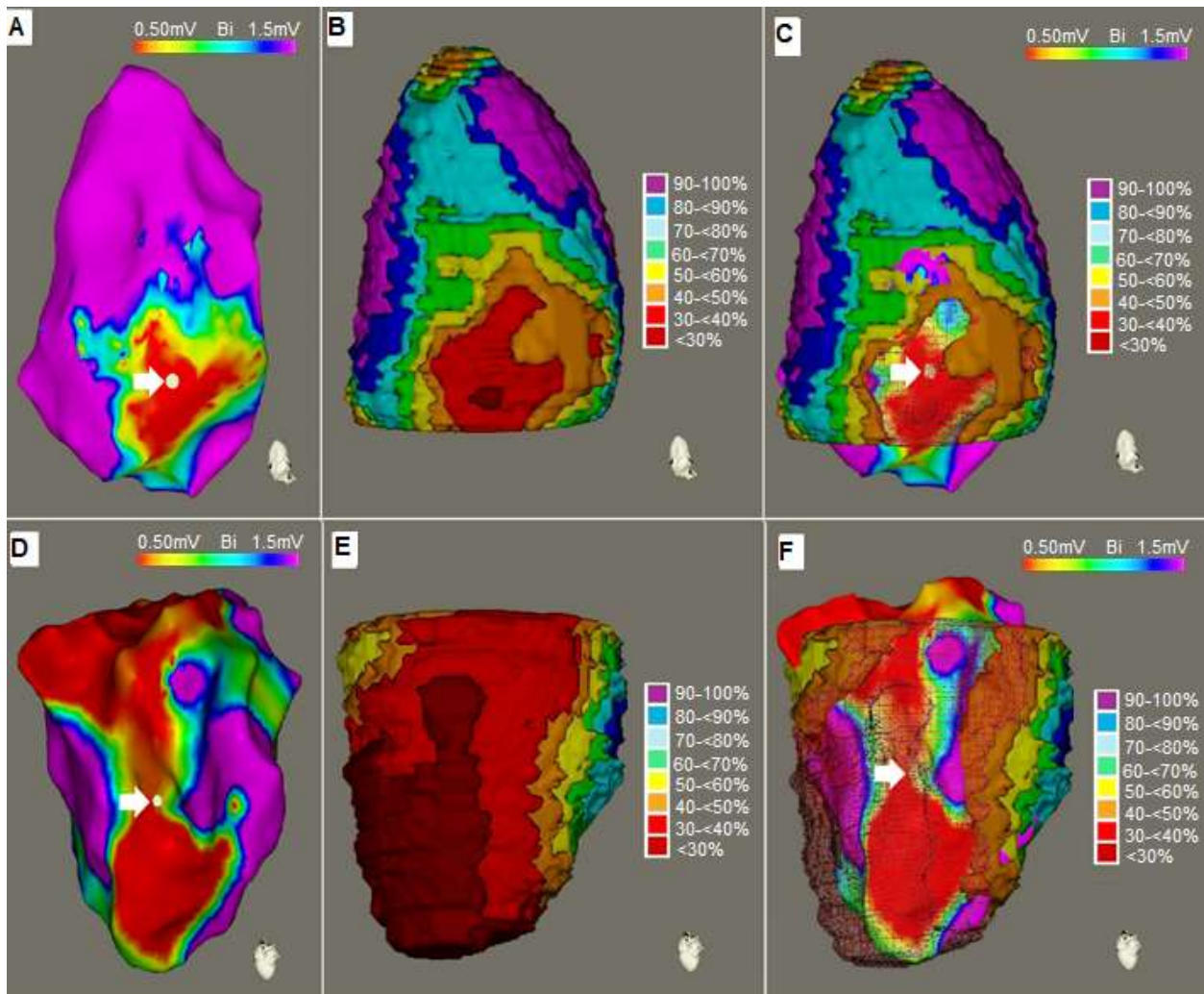
Metabolic-Voltage Mismatch (MVM; additional example). (A) EAM shows apical & inferior scars with 0.5-1.5mV settings and VT channel /exit site (white point and arrow). (B) PET 3D reconstruction demonstrating larger PET severe defect<50% uptake (red area=MVM). (C) Co-registration of 3D PET reconstruction and EAM demonstrate the VT exit /channel within MVM (white arrow).

Supplemental Figure 4:



Graphical representation Comparing the size of abnormal VT Substrate areas out of total LV surface [mean± SD].

Supplemental Figure 5:



Correlation of Abnormal Voltage and ^{18}F -FDG Uptake. (A & D): EAMs showing inferior scar, threshold adjusted 0.5-1.5mV, the white points represent the VT exit/channel. **(B & E)** show the corresponding ^{18}F -FDG 3D reconstructions; both show good correlations of scar location and size to the EAM. **(C & F)** show the registered EAM and ^{18}F -FDG reconstruction with the VT exit site/channel (white arrow) seen within the co-registered scar areas.