# Intra- and Inter- Observer Reproducibility of Multilayer Cardiac Magnetic Resonance Feature Tracking Derived Longitudinal and Circumferential Strain
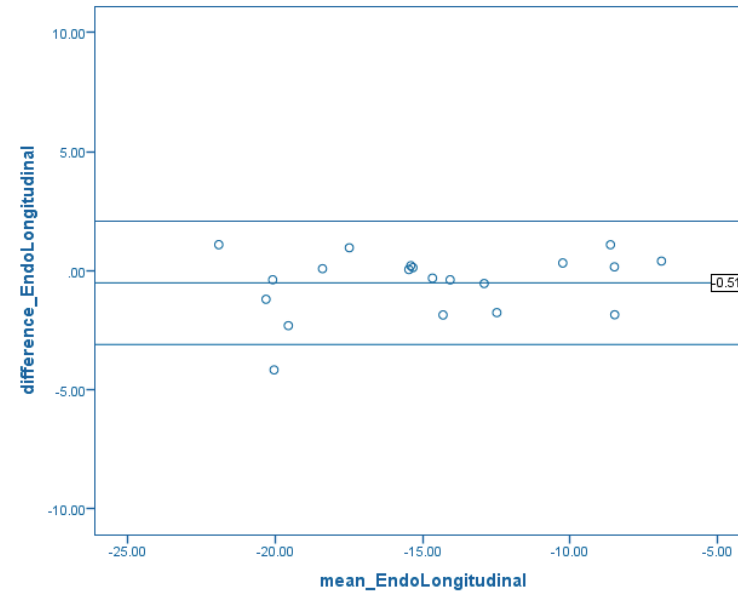
Data Supplement: Bland-Altman Plots

Authors: Ananthapadmanabhan, Saikrishna.; Deng, Echo., Femia, Giuseppe., Tang, Simon., Ko, Eng-Siew., Schuster, Andreas., Puranik, Raj.; Gupta, Pankaj., Nguyen Tuan., Dimitri, Hany., Otton, James
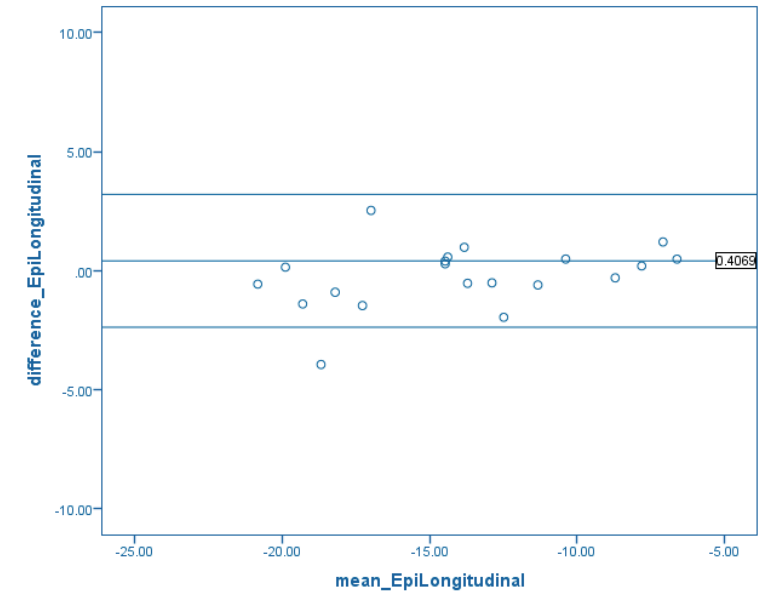
STEMI Cohort (n=20)

BA Plots showing intra-observer agreement for CMR-FT derived ML GLS in STEMI cohort (n=20)
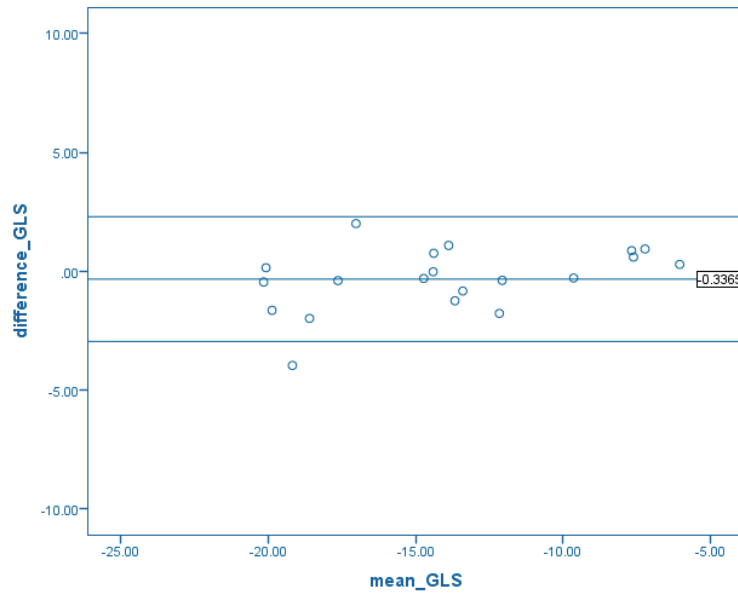
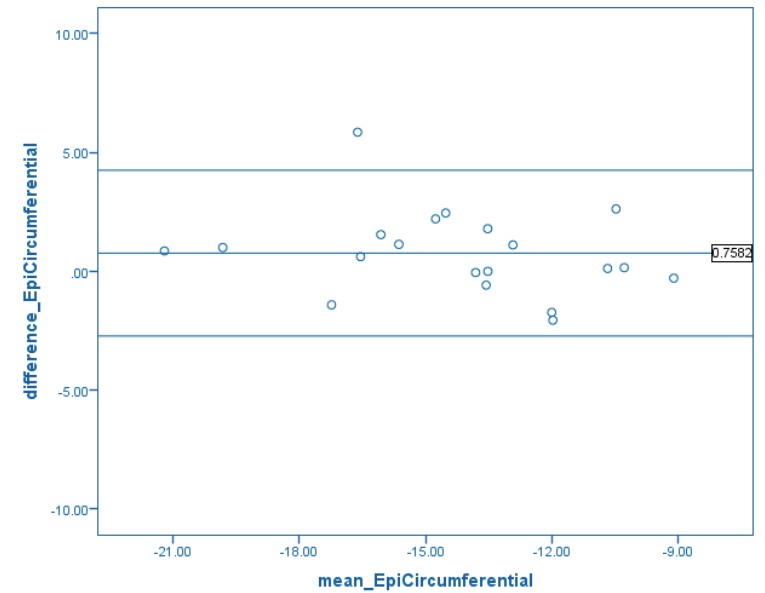Whole-layer GLS
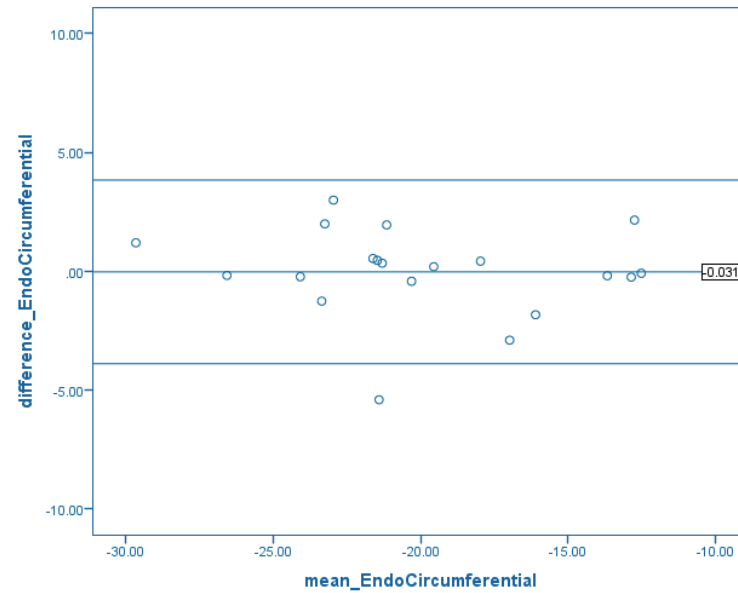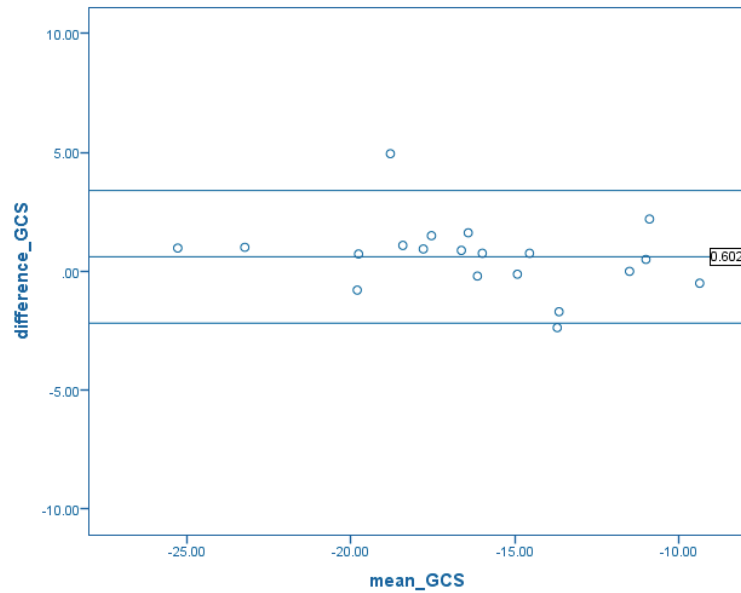Bias = 0.34
LOA = 2.6 (2.3; -3.0)

Endocardial GLS
Bias = 0.52
LOA = 2.6 (2.1; -3.1)

Epicardial GLS
Bias = 0.41
LOA = 2.8 (3.2; -2.4)

BA Plots showing intra-observer agreement for CMR-FT derived ML GCS in STEMI cohort (n=20)

Whole-layer GCS
Bias = 0.60
LOA = 2.8 (3.4; -2.2)
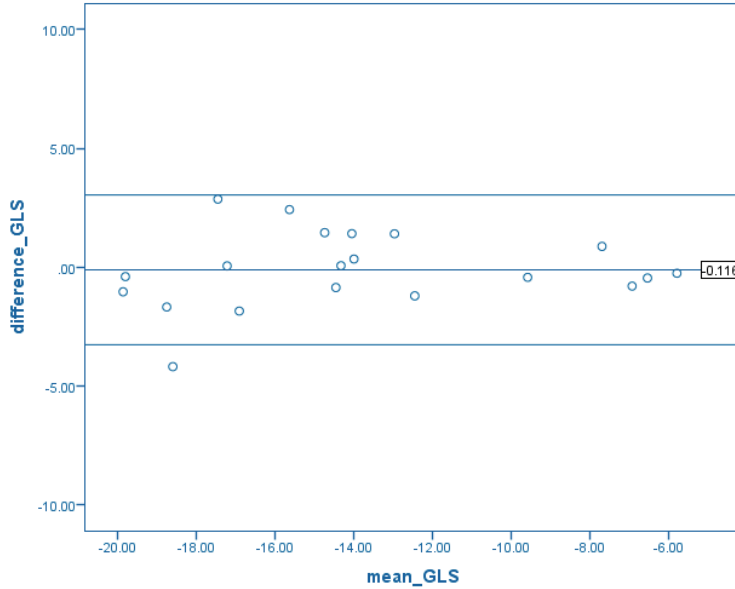
Endocardial GCS
Bias = 0.03
LOA = 3.9 (3.8; -3.9)

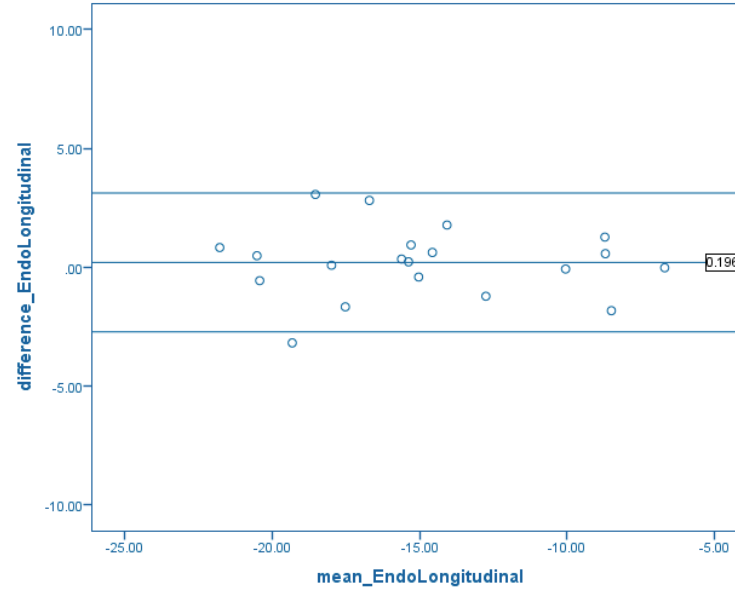Epicardial GCS
Bias = 0.76
LOA = 3.5 (4.2; -2.7)

BA Plots showing inter-observer agreement for CMR-FT derived ML GLS in STEMI cohort (n=20)
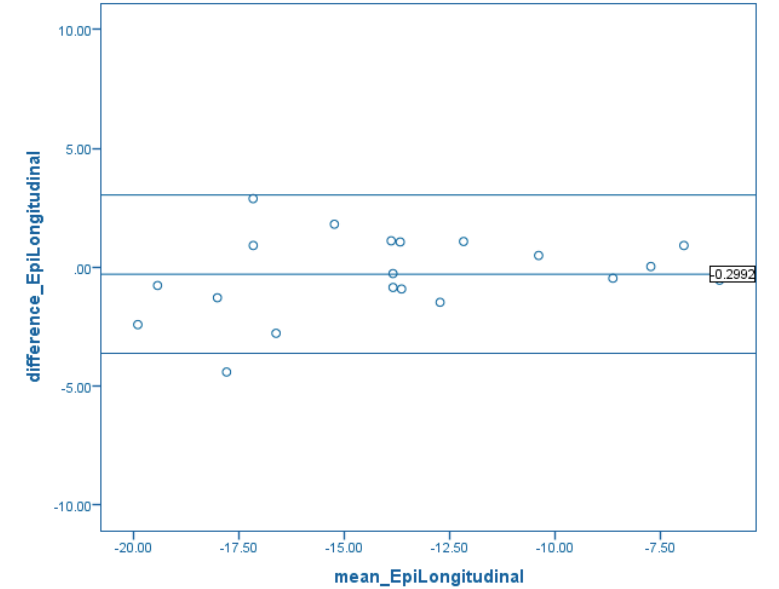

Whole-layer GLS
Bias = 0.12
LOA = 3.1 (3.0; -3.3)
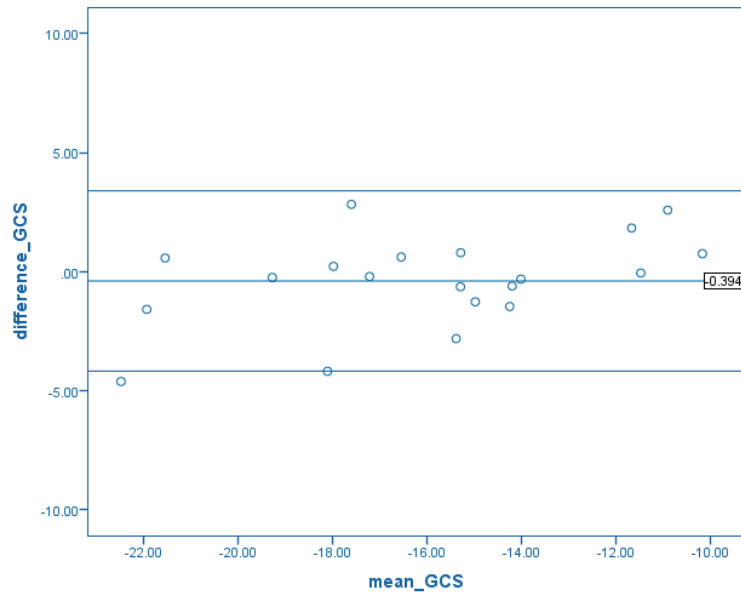
Endocardial GLS
Bias = 0.20
LOA = 2.9 (3.1; -2.7)

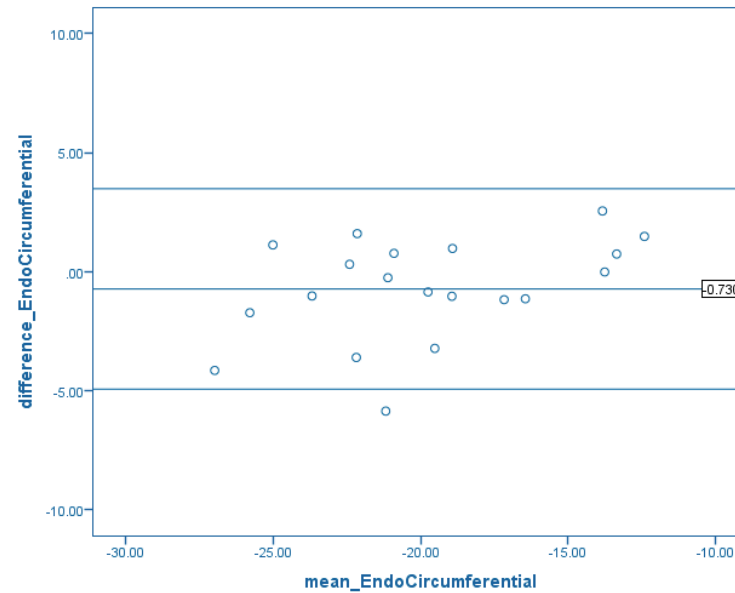Epicardial GLS
Bias = 0.30
LOA = 3.3 (3.0; -3.6)

BA Plots showing inter-observer agreement for CMR-FT derived ML GCS in STEMI cohort (n=20)
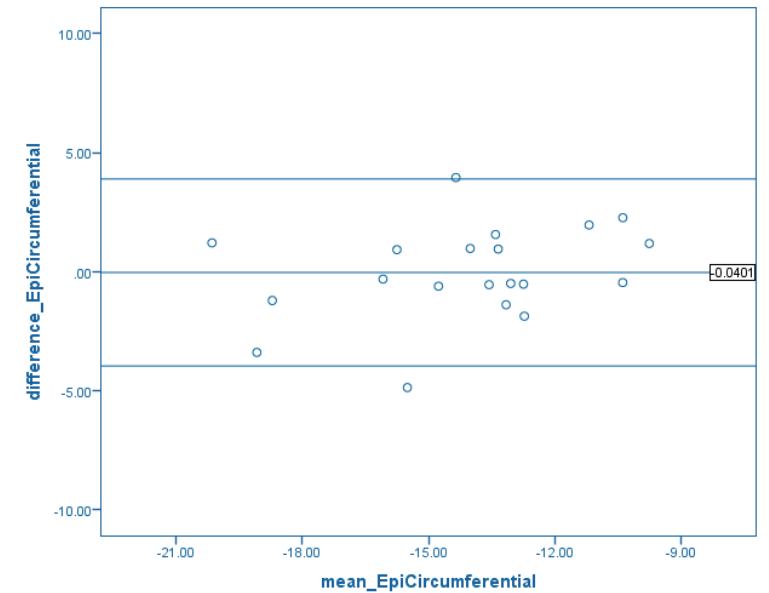
Whole-layer GCS
Bias = 0.39
LOA = 3.8 (3.4; -4.2)
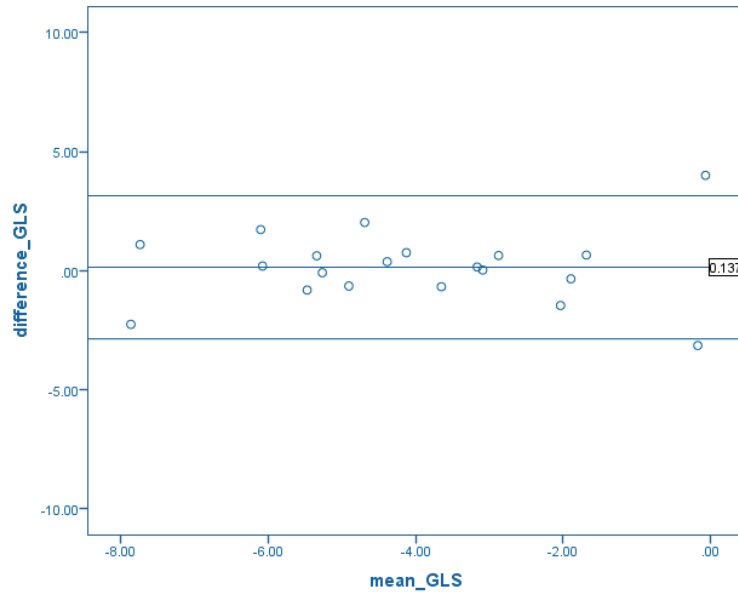
Endocardial GCS
Bias = 0.73
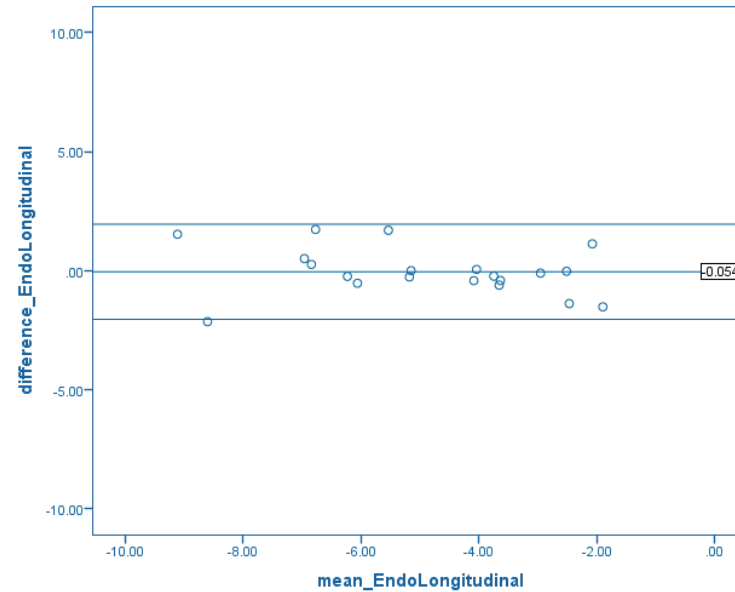LOA = 4.2 (3.5; -4.9)

Epicardial GCS
Bias = 0.04
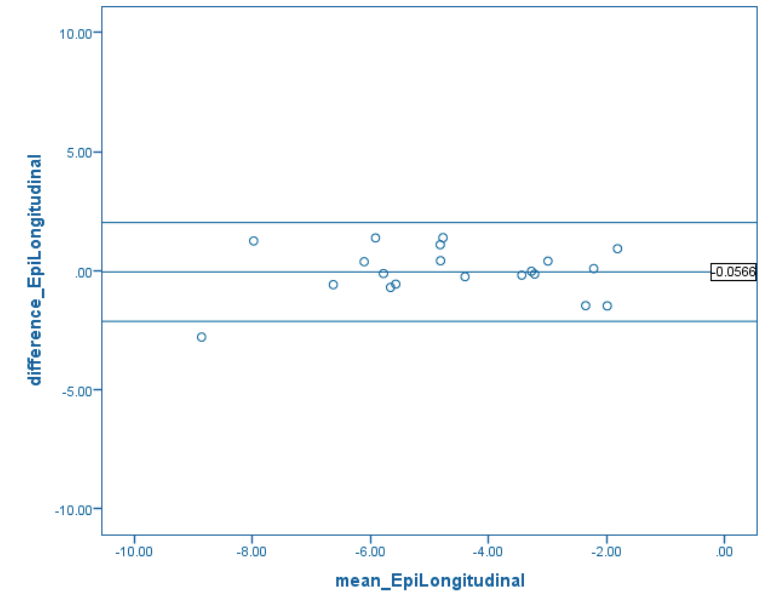LOA = 3.9 (3.9; -4.0)

DCM Cohort (n=20)

BA Plots showing intra-observer agreement for CMR-FT derived ML GLS in DCM cohort (n=20)

Whole-layer GLS
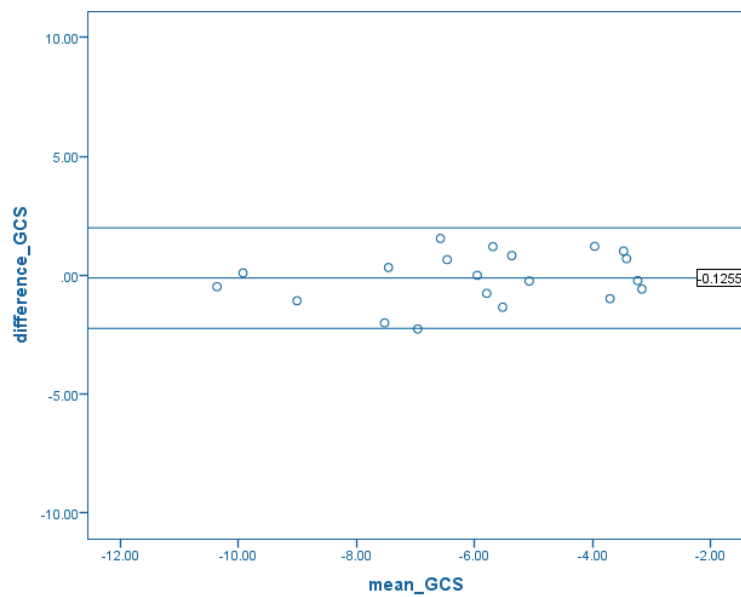Bias = 0.14
LOA = 3.0 (3.1; -2.9)

Endocardial GLS
Bias = 0.05
LOA = 2.0 (1.9; -2.0)

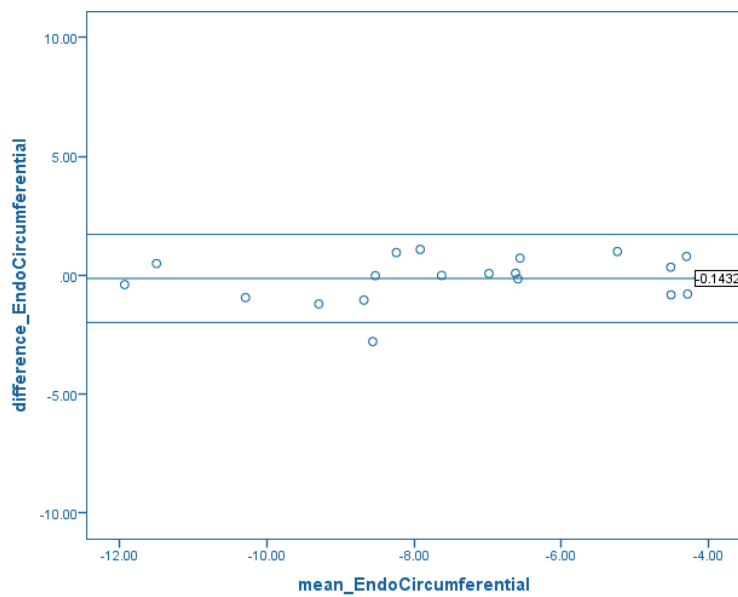Epicardial GLS
Bias = 0.06
LOA = 2.1 (2.0; -2.1)

BA Plots showing intra-observer agreement for CMR-FT derived ML GCS in DCM cohort (n=20)
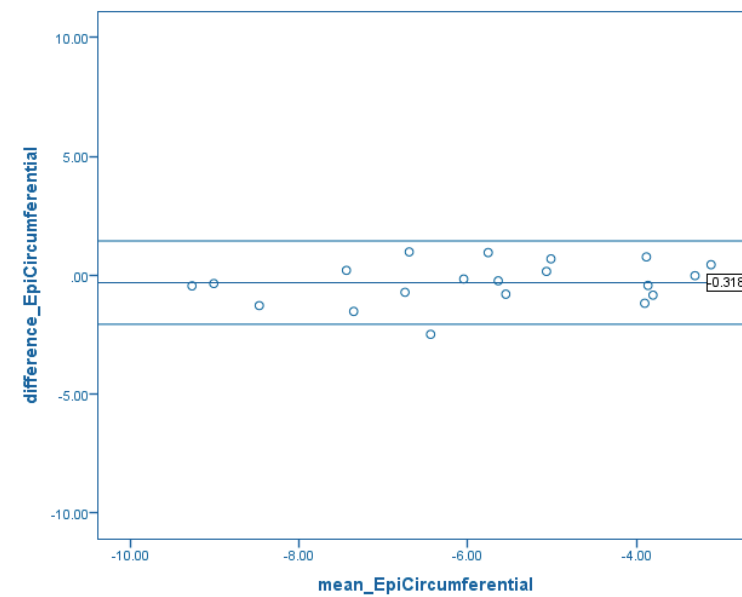

Whole-layer GCS
Bias = 0.13
LOA = 2.1 (2.0; -2.2)
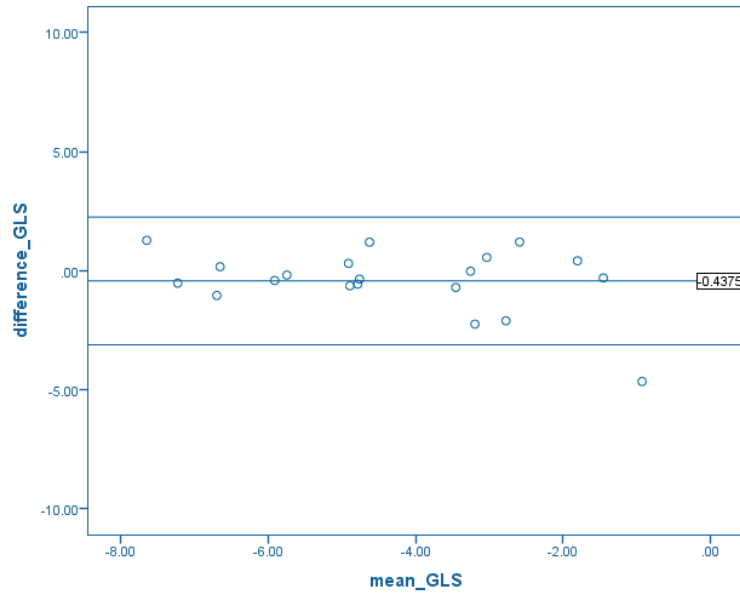
Endocardial GCS
Bias = 0.14
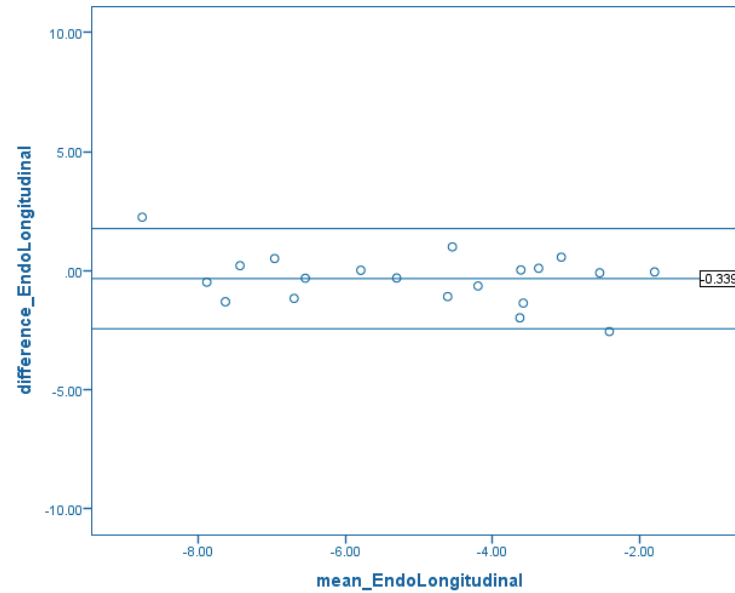LOA = 1.9 (1.7; -2.0)

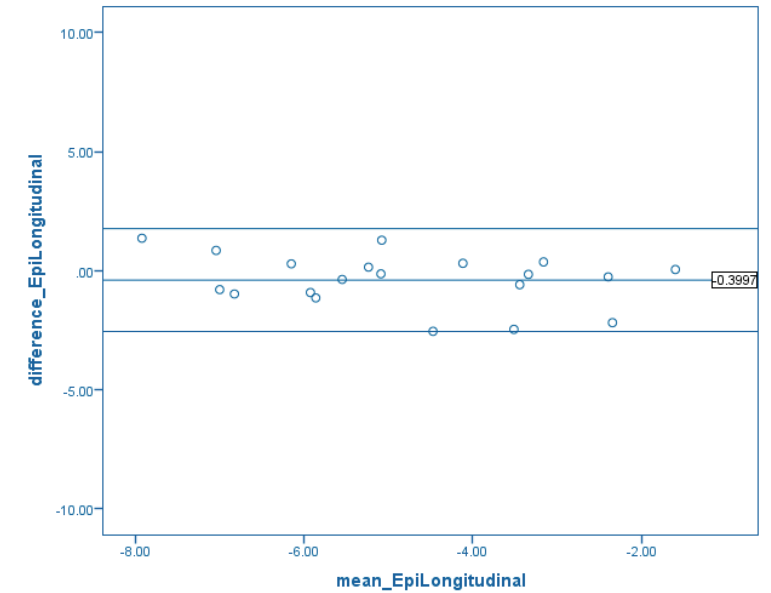Epicardial GCS
Bias = 0.32
LOA = 1.8 (1.4; -2.1)

BA Plots showing inter-observer agreement for CMR-FT derived ML GLS in DCM cohort (n=20)

Whole-layer GLS
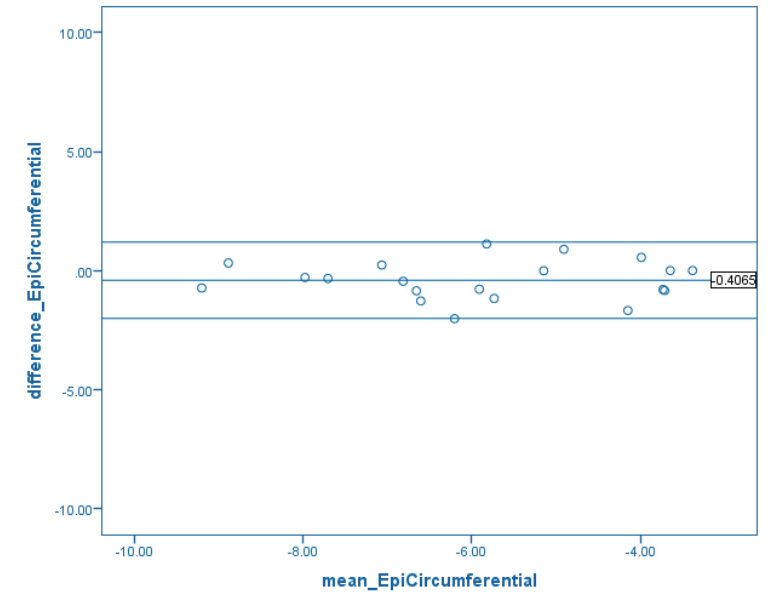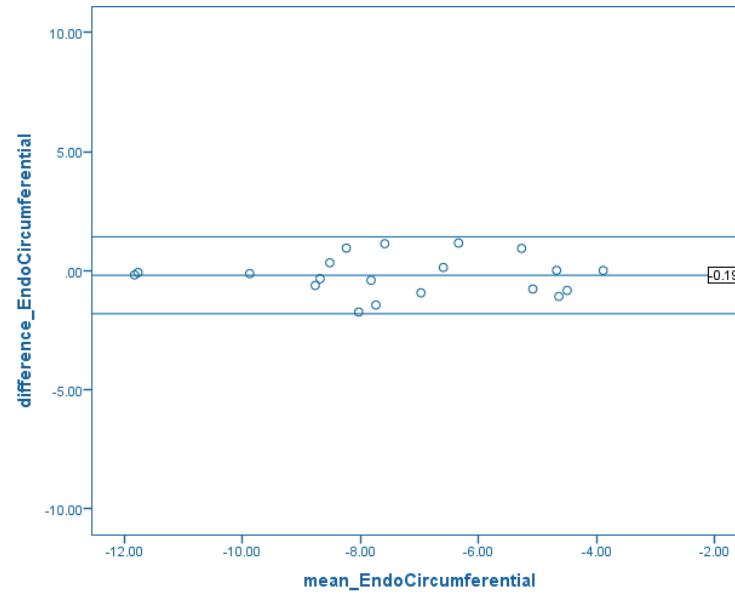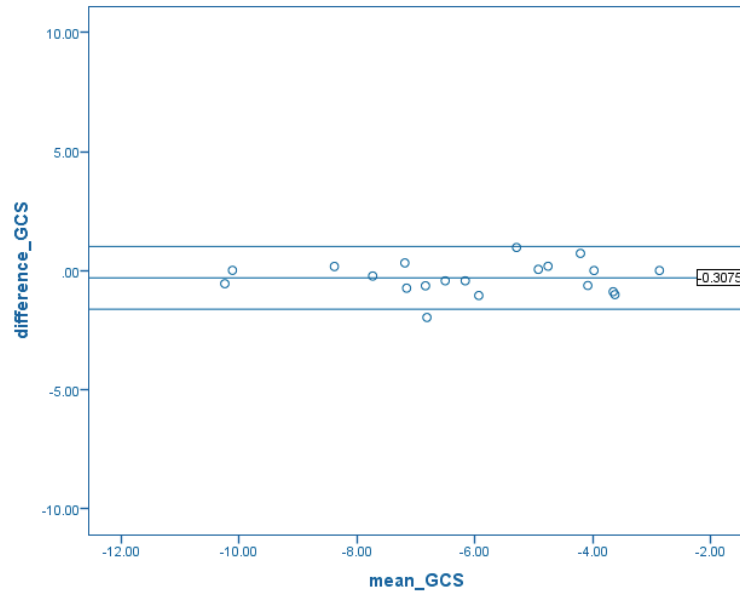Bias = 0.44
LOA = 2.7 (2.2; -3.1)

Endocardial GLS
Bias = 0.34
LOA = 2.1 (1.8; -2.4)

Epicardial GLS
Bias = 0.40
LOA = 2.2 (1.8; -2.6)

BA Plots showing inter-observer agreement for CMR-FT derived ML GCS in DCM cohort (n=20)

Whole-layer GCS
Bias = 0.31
LOA = 1.3 (1.0; -1.6)

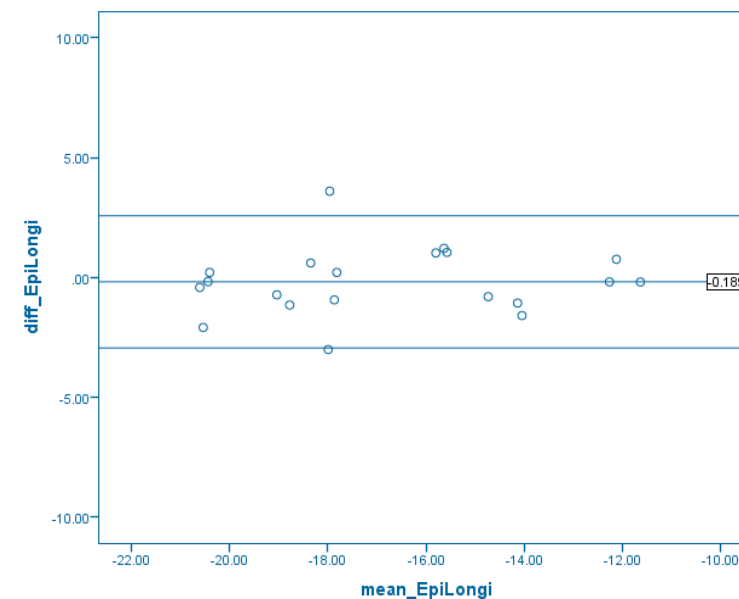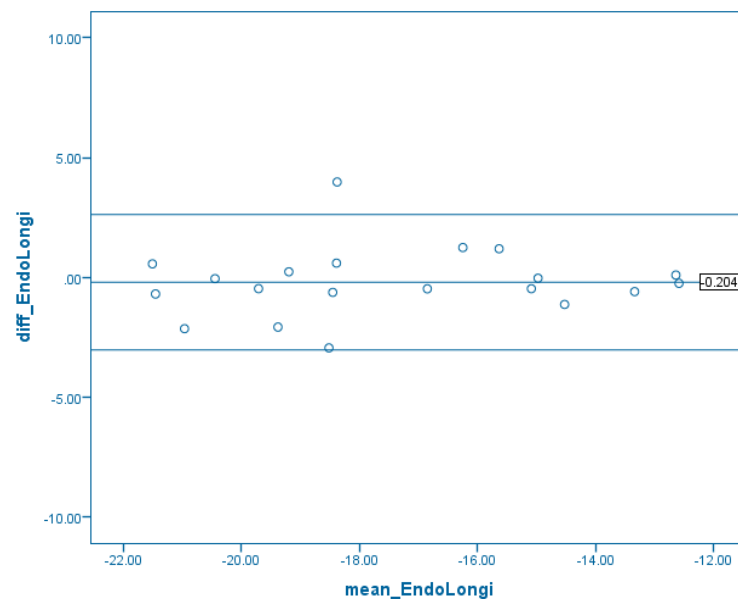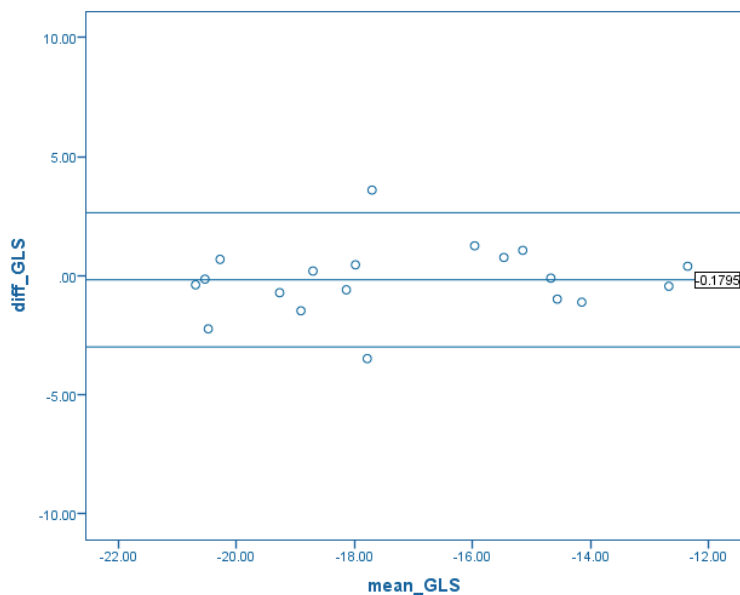Endocardial GCS
Bias = 0.20
LOA = 1.6 (1.4; -1.8)

Epicardial GCS
Bias = 0.41
LOA = 1.6 (1.2; -2.0)

Controls 1.5T Cohort (n=20)

BA Plots showing intra-observer agreement for CMR-FT derived ML GLS in Controls 1.5T cohort (n=20)

Whole-layer GLS
Bias = 0.18
LOA = 2.8 (2.6; -3.0)
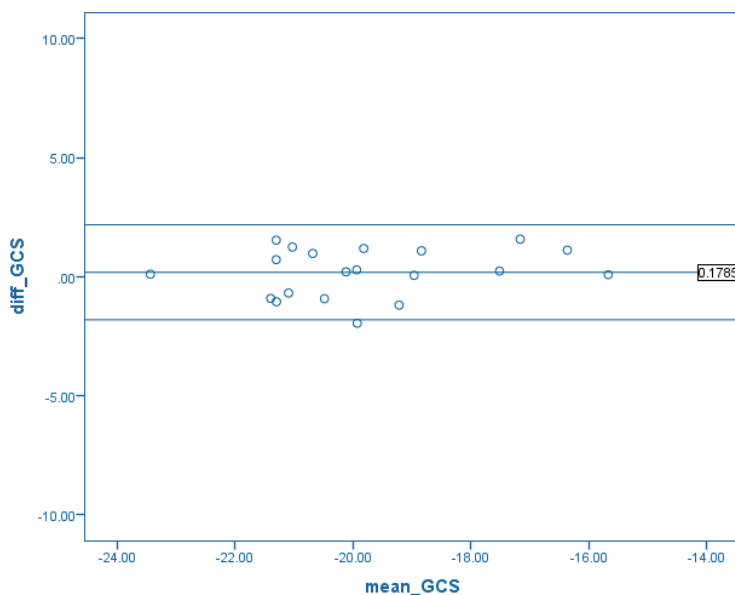
Endocardial GLS
Bias = 0.20
LOA = 2.8 (2.6; -3.0)
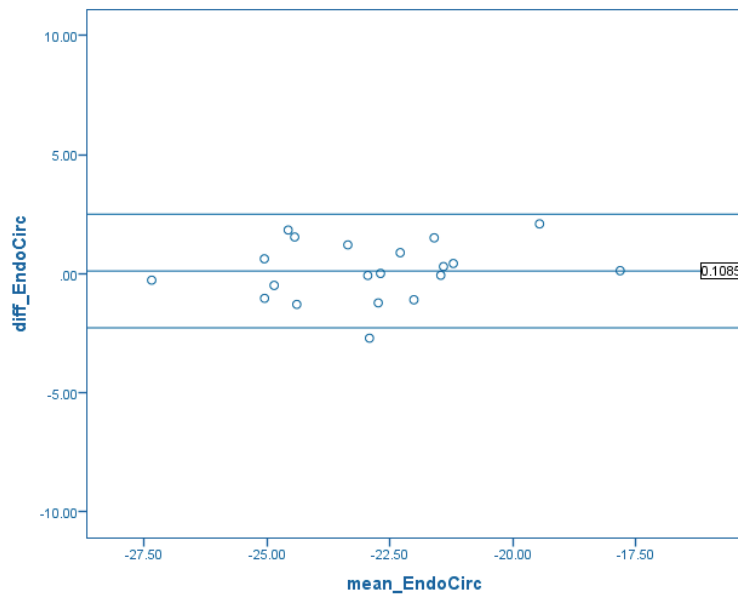
Epicardial GLS
Bias = 0.19
LOA = 2.8 (2.6 -2.9)

BA Plots showing intra-observer agreement for CMR-FT derived ML GCS in Controls 1.5T cohort (n=20)
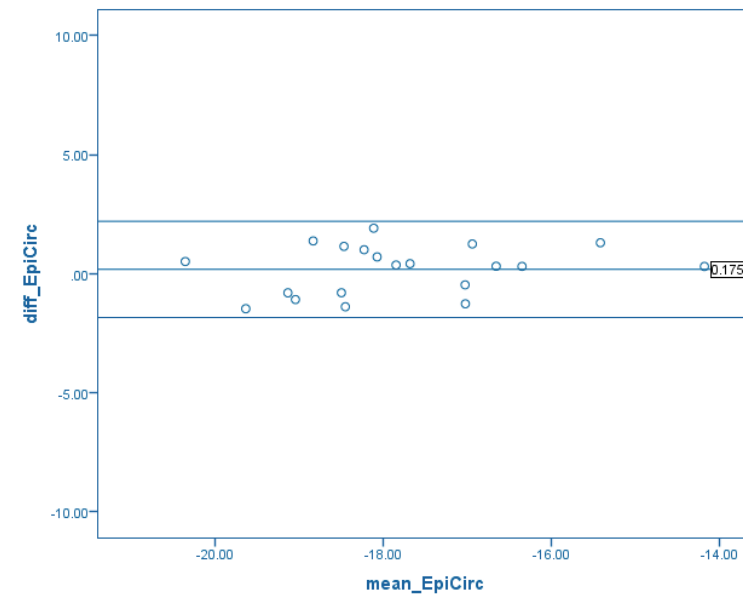

Whole-layer GCS
Bias = 0.18
LOA = 2.0 (2.2; -1.8)

Endocardial GCS
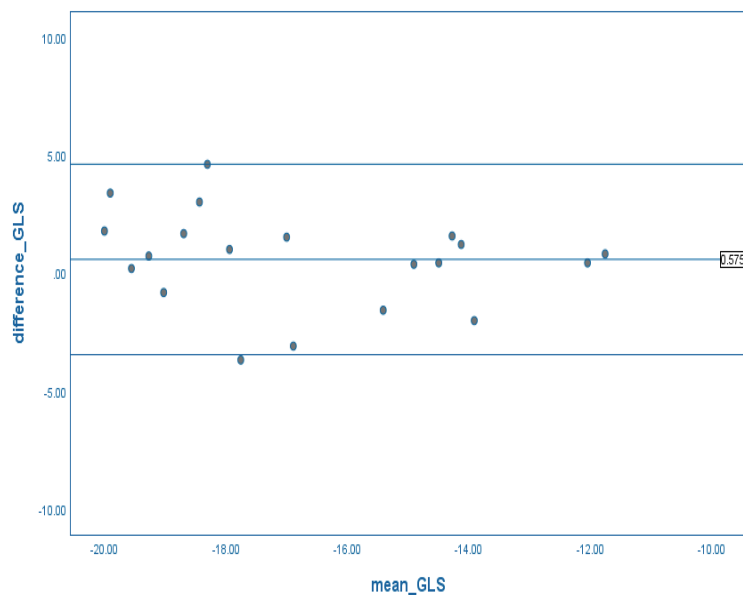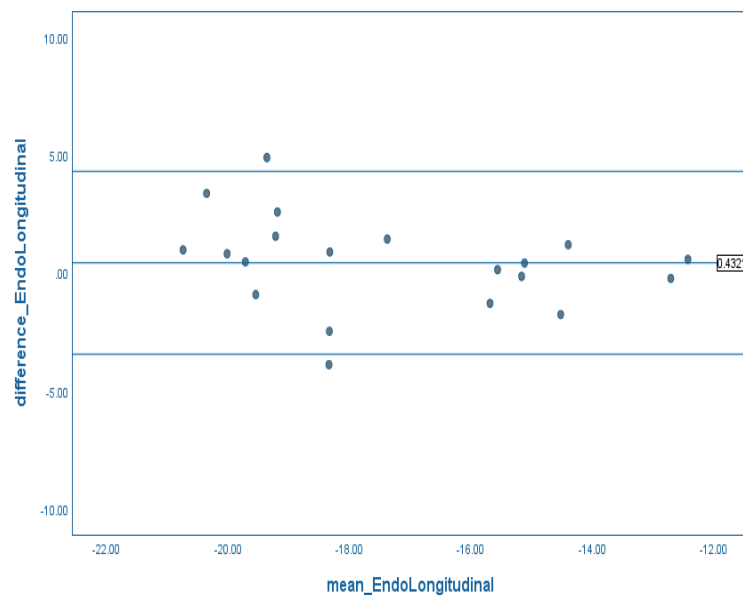Bias = 0.11
LOA = 2.4 (2.5; -2.3)

Epicardial GCS
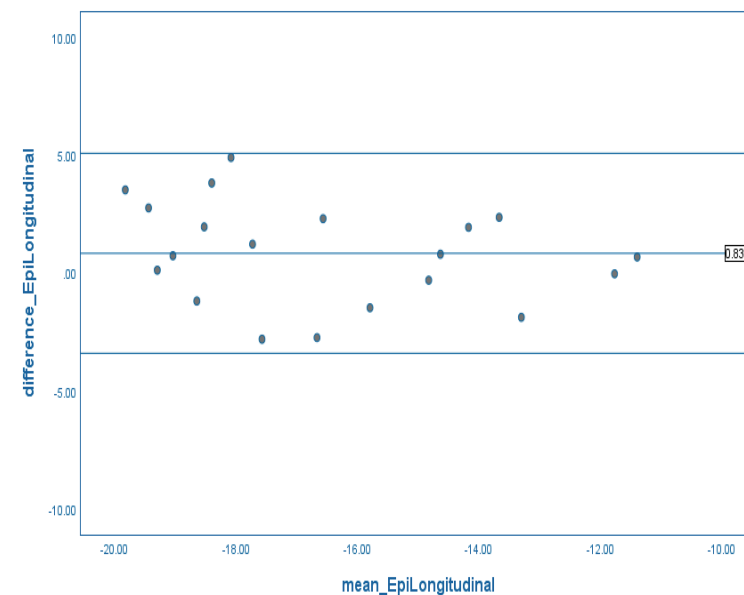Bias = 0.18
LOA = 2.0 (2.2; -1.8)

BA Plots showing inter-observer agreement for CMR-FT derived ML GLS in Controls 1.5T cohort (n=20)

Whole-layer GLS
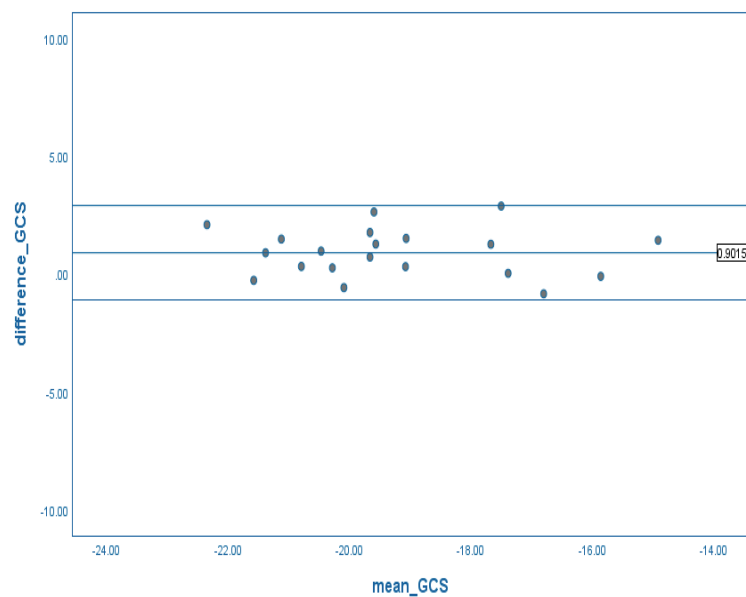Bias = 0.58
LOA = 4.0 (4.6; -3.5)

Endocardial GLS
Bias = 0.43
LOA = 3.9 (4.3; -3.4)
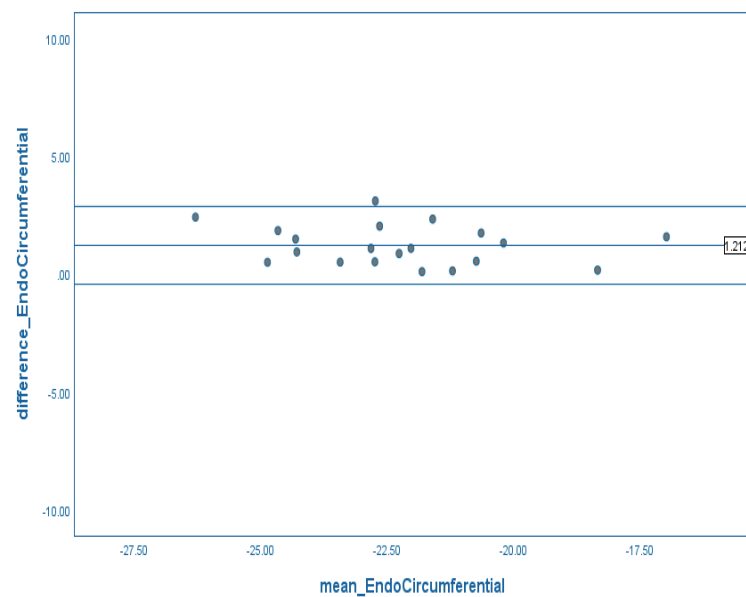
Epicardial GLS
Bias = 0.83
LOA = 4.2 (5.1; -3.4)

BA Plots showing inter-observer agreement for CMR-FT derived ML GCS in Controls 1.5T cohort (n=20)
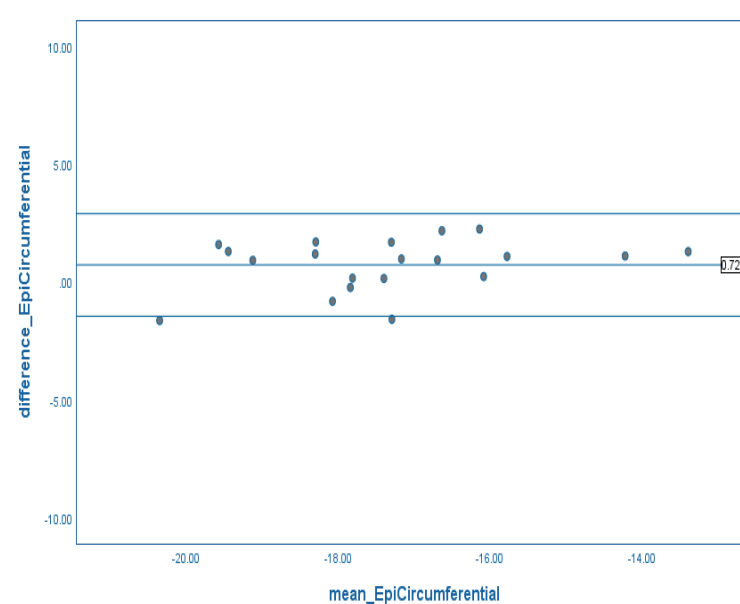

Whole-layer GCS
Bias = 0.90
LOA = 2.0 (2.9; -1.1)

Endocardial GCS
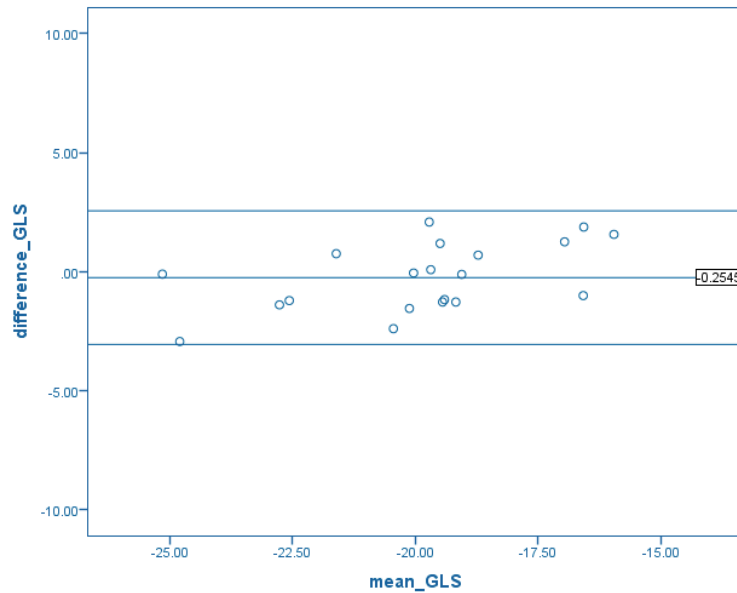Bias = 1.21
LOA = 1.7 (2.9; -0.4)

Epicardial GCS
Bias = 0.72
LOA = 2.2 (2.9; -1.5)
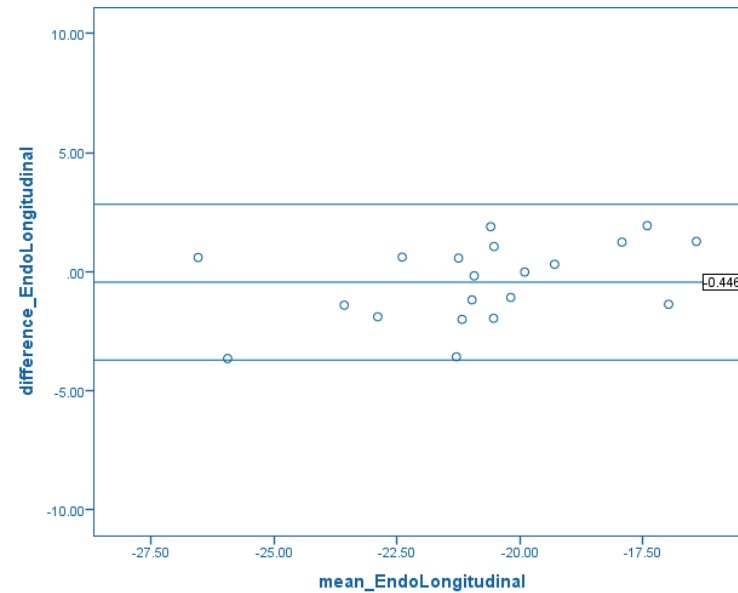
Controls 3T Cohort (n=20)

BA Plots showing intra-observer agreement for CMR-FT derived ML GLS in Controls 3T cohort (n=20)
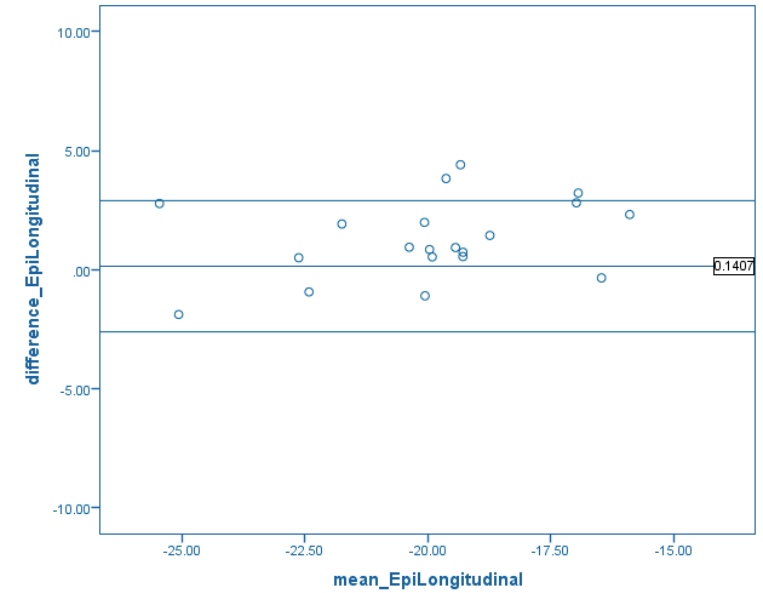

Whole-layer GLS
Bias = 0.25
LOA = 2.8 (2.5; -3.1)

Endocardial GLS
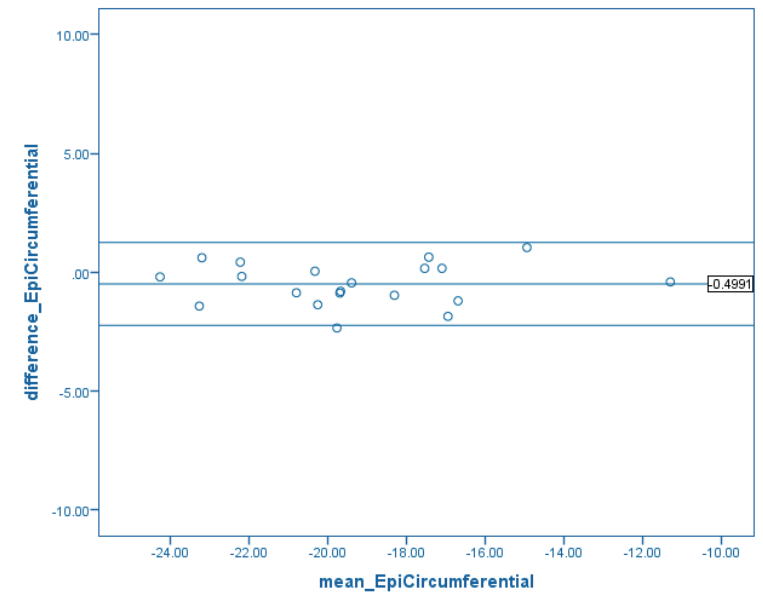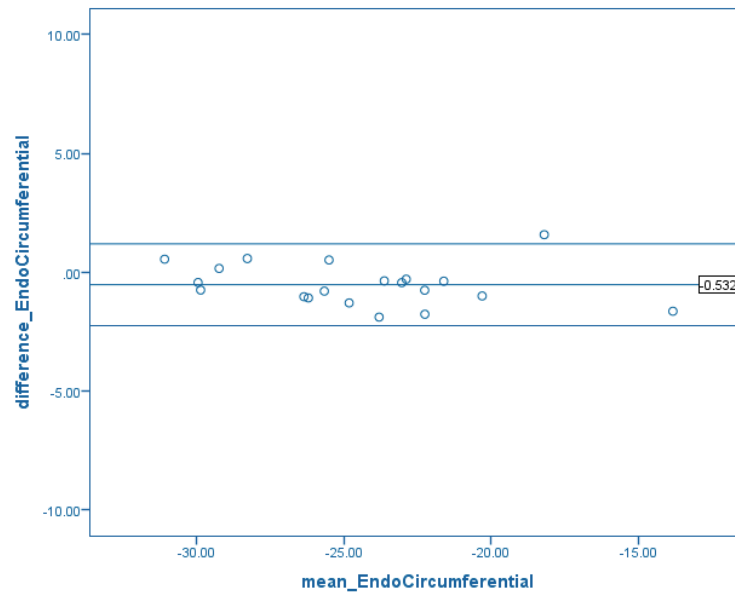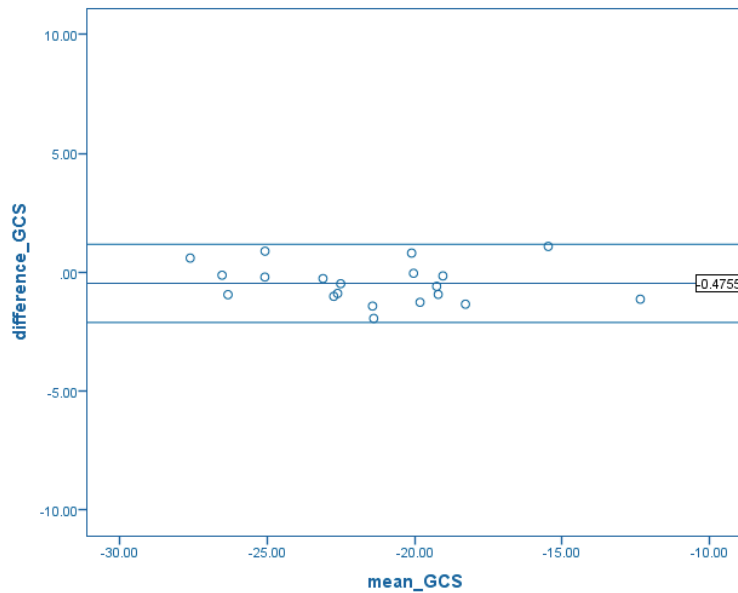Bias = 0.45
LOA = 3.3 (2.8; -3.7)

Epicardial GLS
Bias = 0.14
LOA = 2.8 (2.9; -2.6)

BA Plots showing intra-observer agreement for CMR-FT derived ML GCS in Controls 3T cohort (n=20)

Whole-layer GCS
Bias = 0.48
LOA = 1.6 (1.2; -2.1)
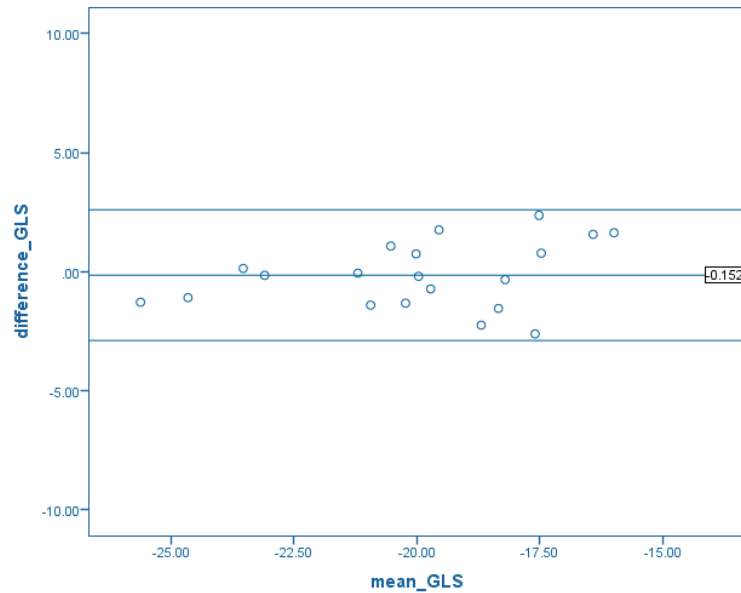
Endocardial GCS
Bias = 0.53
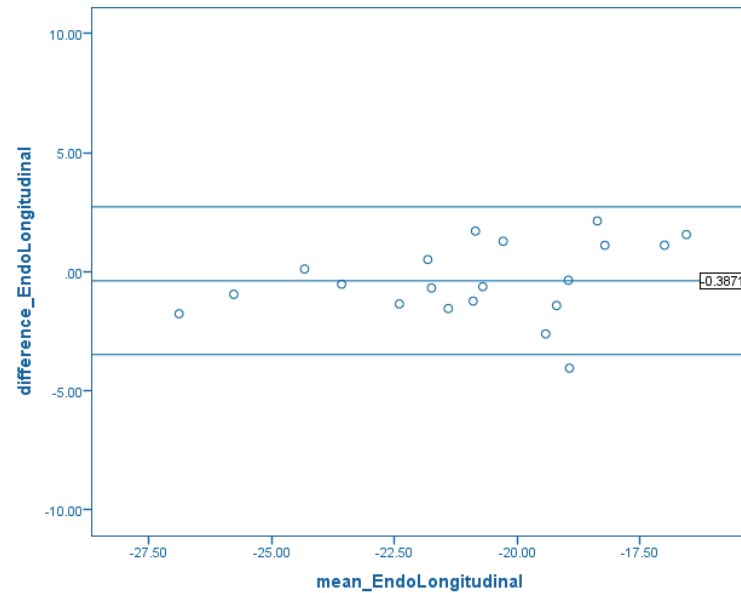LOA = 1.7 (1.2; -2.3)

Epicardial GCS
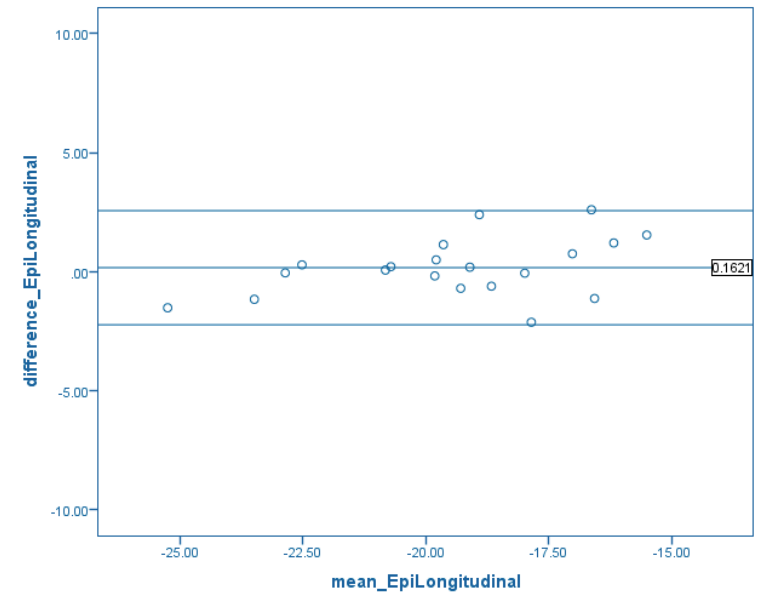Bias = 0.50
LOA = 1.7 (1.2; -2.2)

BA Plots showing inter-observer agreement for CMR-FT derived ML GLS in Controls 3T cohort (n=20)

Whole-layer GLS
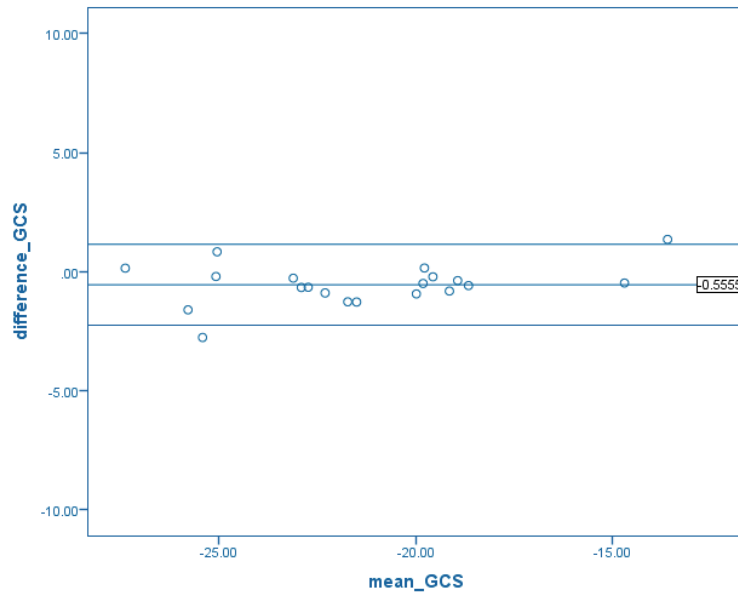Bias = 0.15
LOA = 2.7 (2.6; -2.9)

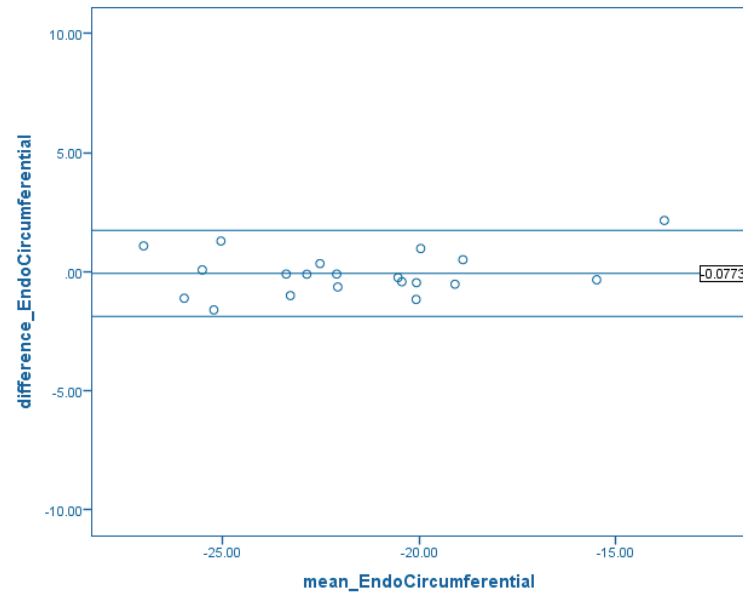Endocardial GLS
Bias = 0.39
LOA = 3.1 (2.7; -3.5)

Epicardial GLS
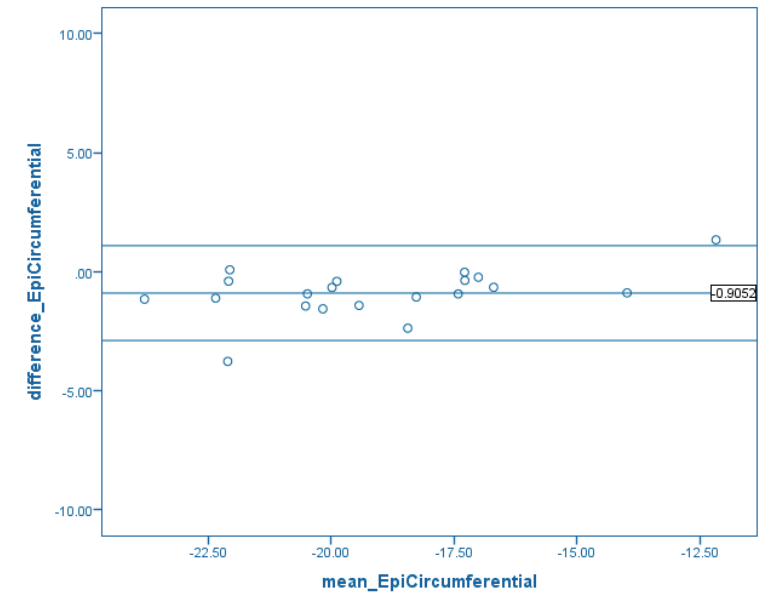Bias = 0.16
LOA = 2.4 (2.6; -2.2)

BA Plots showing inter-observer agreement for CMR-FT derived ML GCS in Controls 3T cohort (n=20)

Whole-layer GCS
Bias = 0.56
LOA = 1.7 (1.1; -2.3)

Endocardial GCS
Bias = 0.08
LOA = 1.8 (1.7; -1.9)

Epicardial GCS
Bias = 0.91
LOA = 2.0 (1.1; -2.9)