

Additional file 1

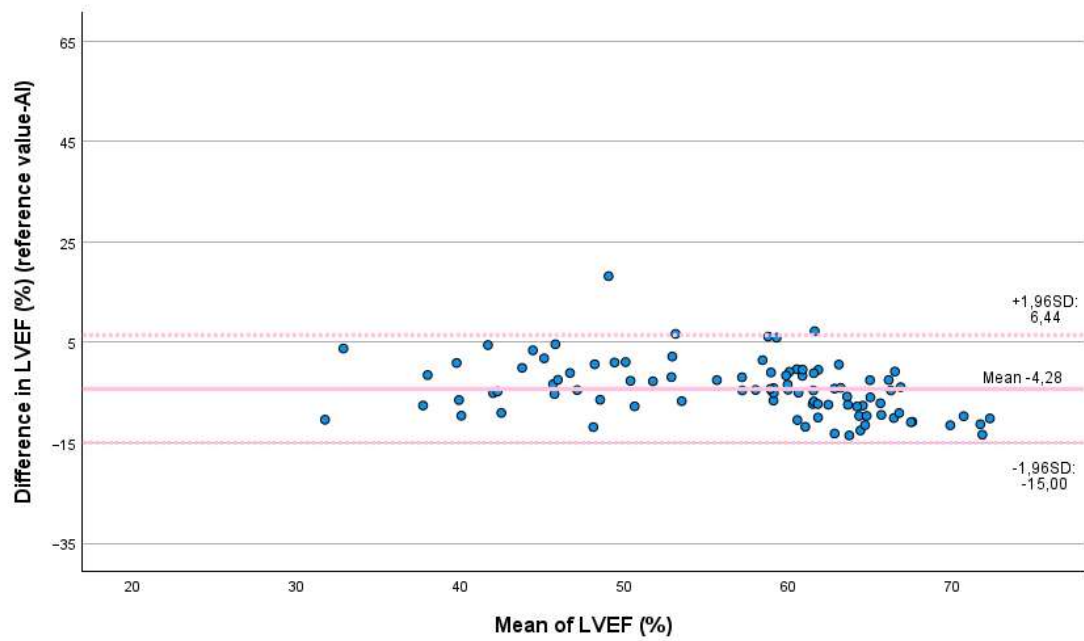


Figure 1. Bland-Altman plot for LVEF (%) for the female cohort (n = 95). The mean represents (-4.28) the average difference between the echocardiographic reference value and the AI-based estimate. The limits of agreement are defined as $\pm 1.96SD$. LVEF = left ventricle ejection fraction, AI = artificial intelligence. SD = standard deviations.

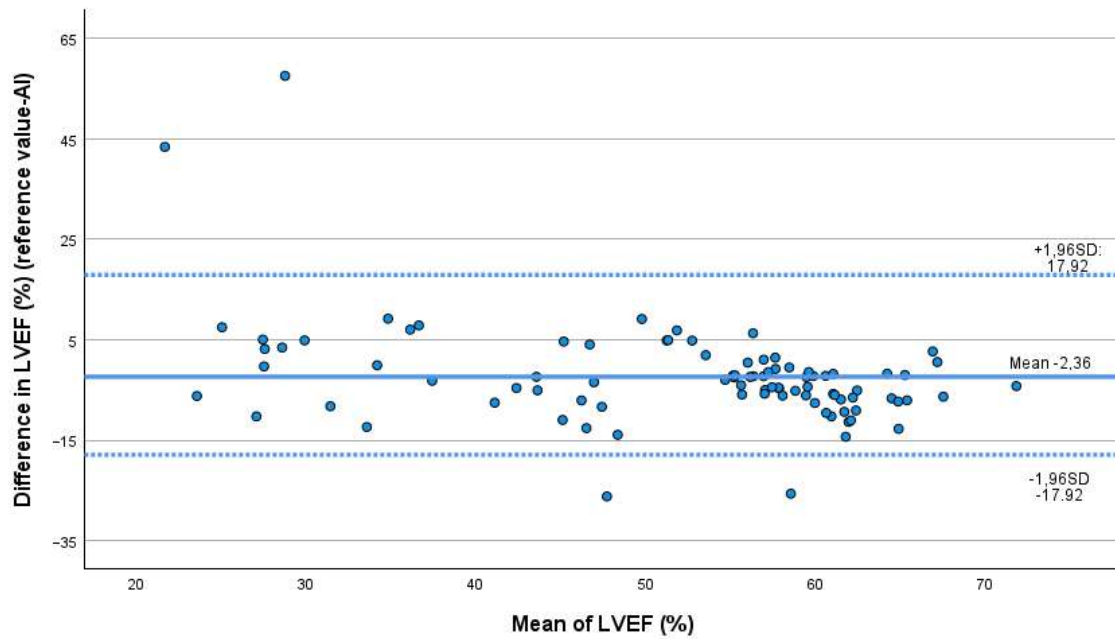


Figure 2. Bland-Altman plot for left ventricle ejection fraction LVEF (%) for the male cohort (n = 88). The mean (-2.36) represents the average difference between the echocardiographic reference value and the AI-based estimate. The limits of agreement are defined as $\pm 1.96SD$. LVEF = left ventricle ejection fraction; AI = artificial intelligence. SD = standard deviations.

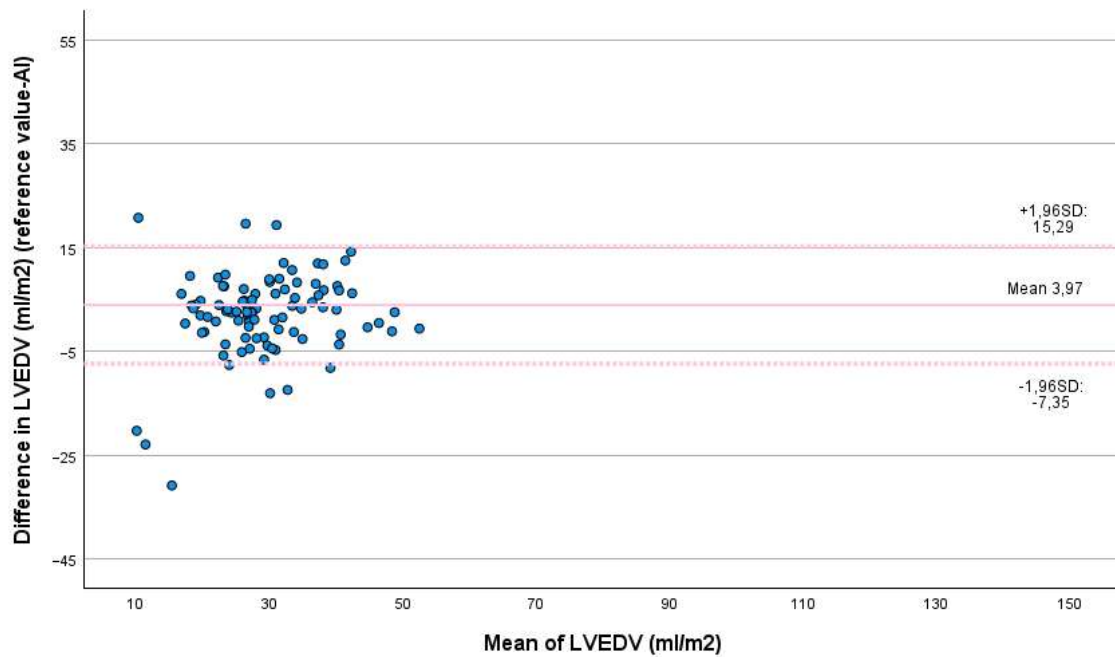


Figure 3. Bland-Altman plot for LVEDV (ml/m^2) for the female cohort ($n = 95$). The mean represents (3.97) the average difference between the echocardiographic reference value and the AI-based estimate. The limits of agreement are defined as $\pm 1.96\text{SD}$. LVEDV = Left Ventricular End-Diastolic Volume, AI = artificial intelligence. SD = standard deviations.

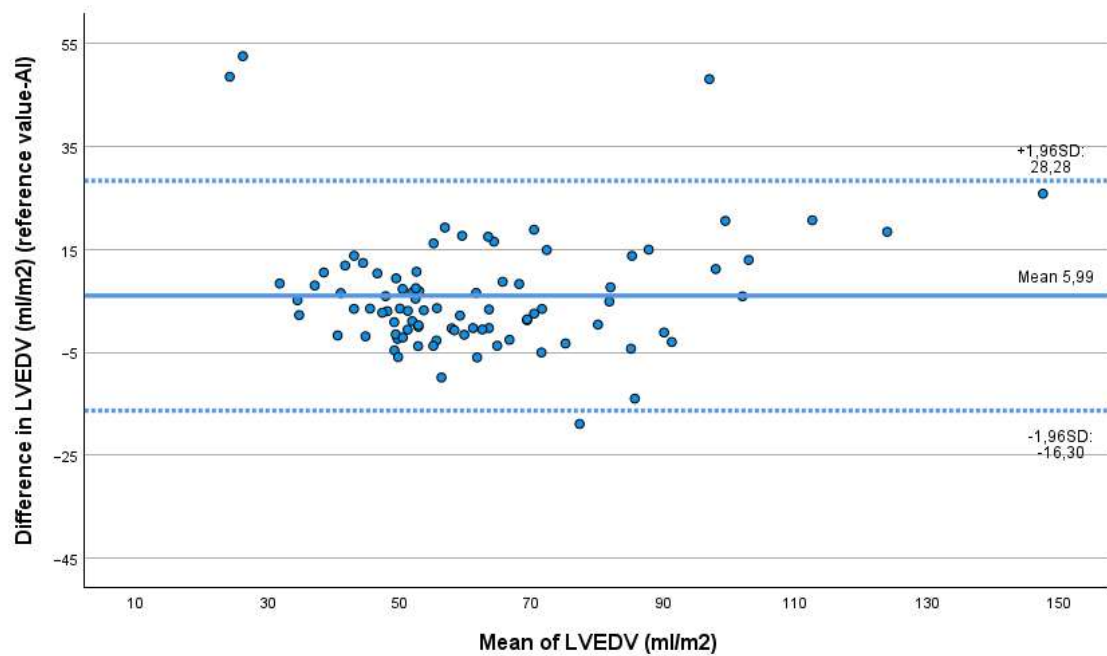


Figure 4. Bland-Altman plot for LVEDV (ml/m^2) in the male cohort ($n = 88$). The mean (5.99) represents the average difference between the echocardiographic reference value and the AI-based estimate. The limits of agreement are defined as $\pm 1.96\text{SD}$. LV = left ventricle, AI = artificial intelligence. SD = standard deviations.

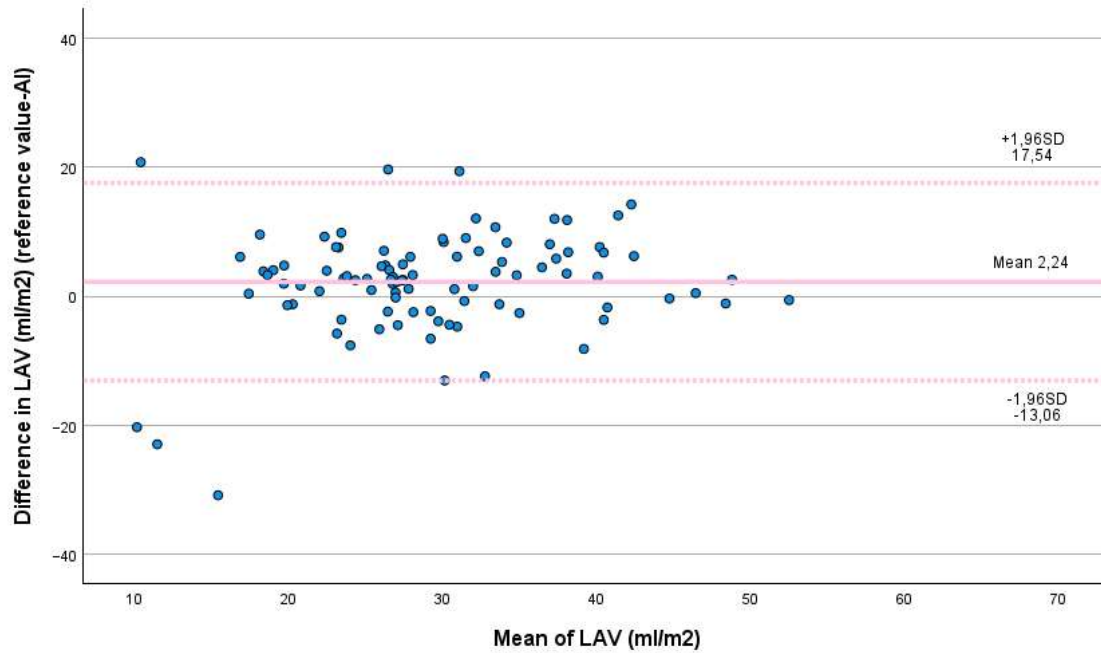


Figure 5. Bland–Altman plot for LAV (ml/m²) for the female cohort (n = 91). The mean (2.24) represents the average difference between the echocardiographic reference value and the AI-based estimate. The limits of agreement are defined as $\pm 1.96SD$. LA = left atrium, AI = artificial intelligence. SD = standard deviations.

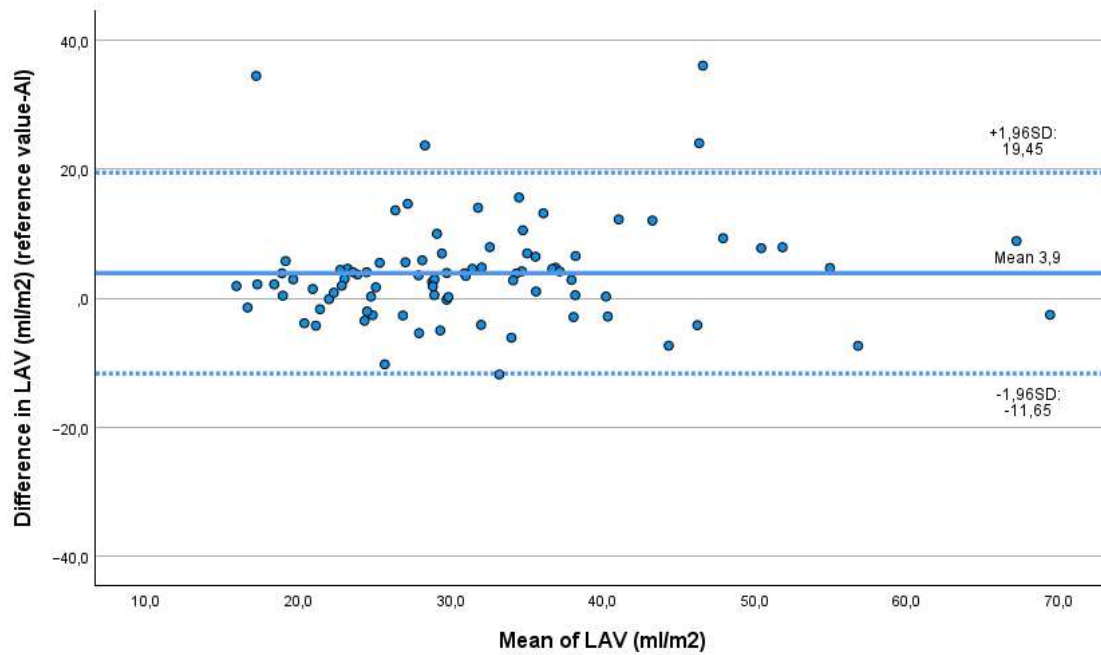


Figure 6. Bland–Altman plot for LAV (ml/m²) for the male cohort (n = 87). The mean (3.9) represents the average difference between the echocardiographic reference value and the AI-based estimate. The limits of agreement are defined as $\pm 1.96SD$. LA = left atrium, AI = artificial intelligence. SD = standard deviations.

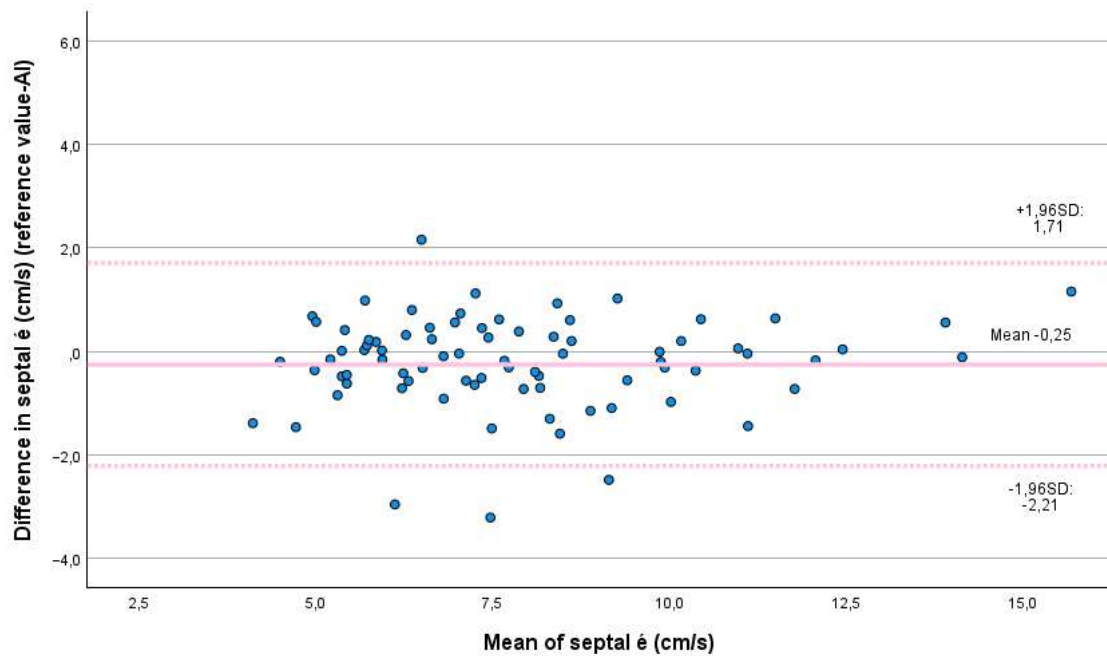


Figure 7. Bland–Altman plot for septal e' (cm/s) for the female cohort ($n = 82$). The mean (-0.25) represents the average difference between the echocardiographic reference value and the AI-based estimate. The limits of agreement are defined as $\pm 1.96SD$. e' = myocardial early diastolic velocity during the rapid filling phase, AI = artificial intelligence, SD = standard deviations.

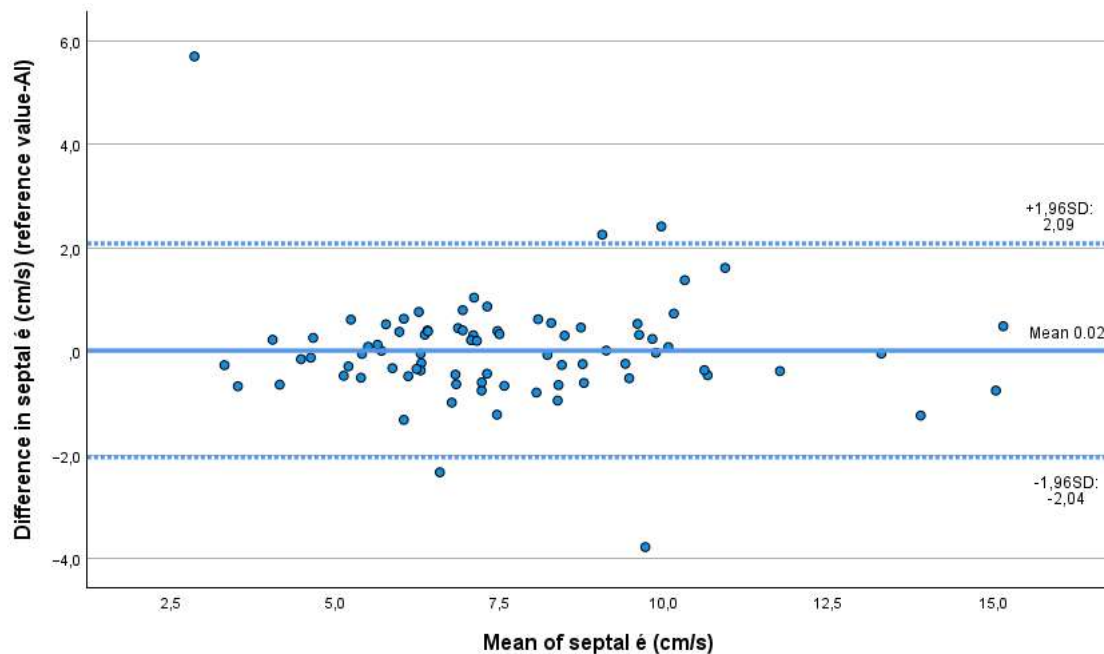


Figure 8. Bland–Altman plot for septal e' (cm/s) for the male cohort ($n = 82$). The mean (0.02) represents the average difference between the echocardiographic reference value and the AI-based estimate. The limits of agreement are defined as $\pm 1.96SD$. e' = myocardial early diastolic velocity during the rapid filling phase, AI = artificial intelligence, SD = standard deviations.

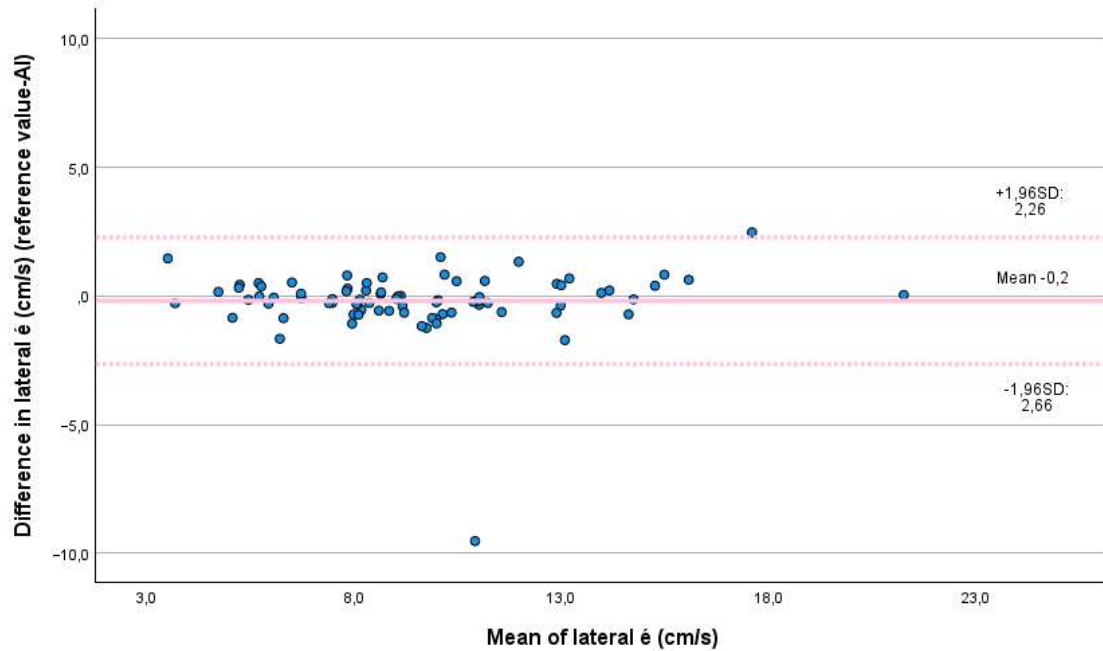


Figure 9. Bland–Altman plot for lateral e' (cm/s) for the female cohort ($n = 81$). The mean (-0.2) represents the average difference between the echocardiographic reference value and the AI-based estimate. The limits of agreement are defined as $\pm 1.96SD$. e' = myocardial early diastolic velocity during the rapid filling phase, AI = artificial intelligence, SD = standard deviations.

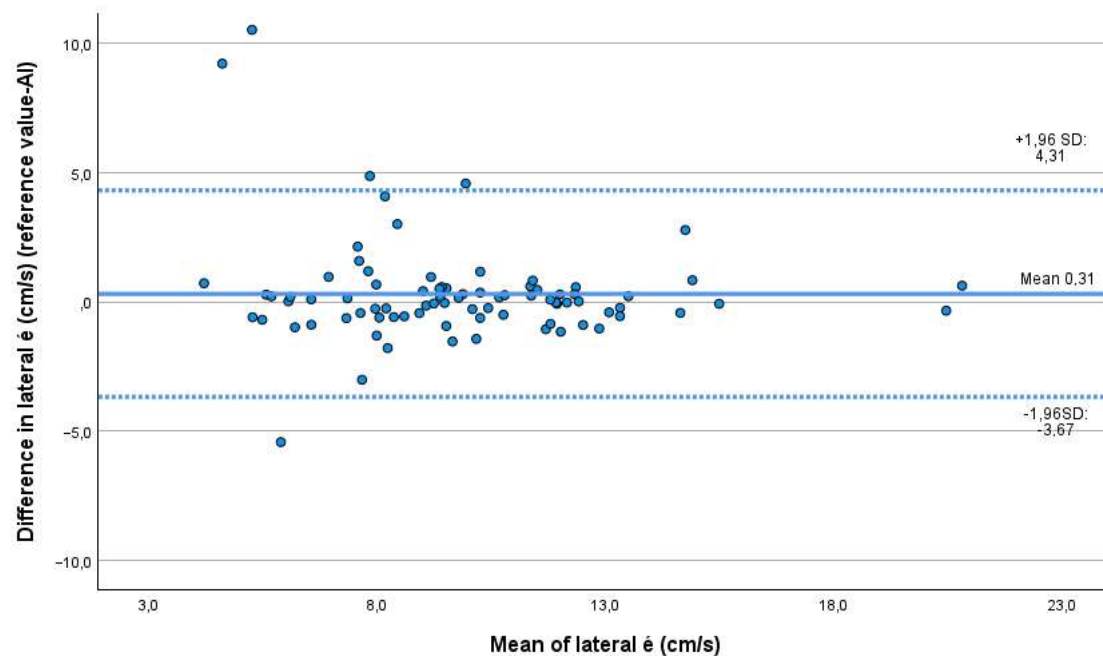


Figure 10. Bland–Altman plot for lateral e' (cm/s) for the male cohort ($n = 82$). The mean (0.31) represents the average difference between the echocardiographic reference value and the AI-based estimate. The limits of agreement are defined as $\pm 1.96SD$. e' = myocardial early diastolic velocity during the rapid filling phase, AI = artificial intelligence, SD = standard deviations.

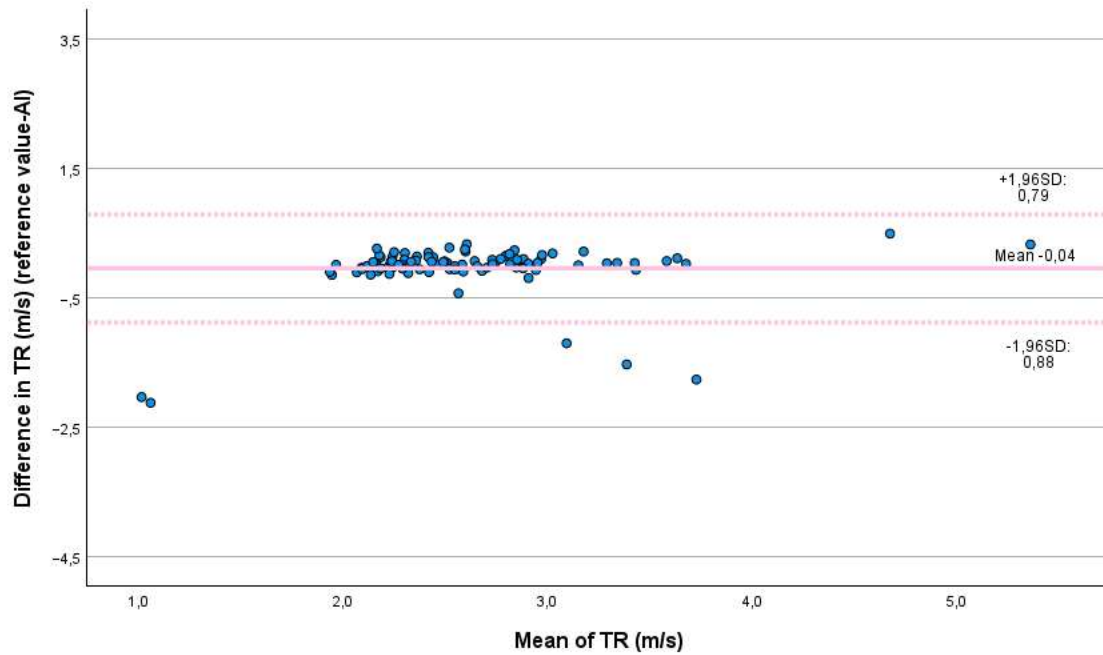


Figure 11. Bland–Altman plot for TR (m/s) for the female cohort ($n = 93$). The mean (-0.04) represents the average difference between the echocardiographic reference value and the AI-based estimate. The limits of agreement are defined as $\pm 1.96SD$. TR = tricuspid valve regurgitation, AI = artificial intelligence. SD = standard deviations.

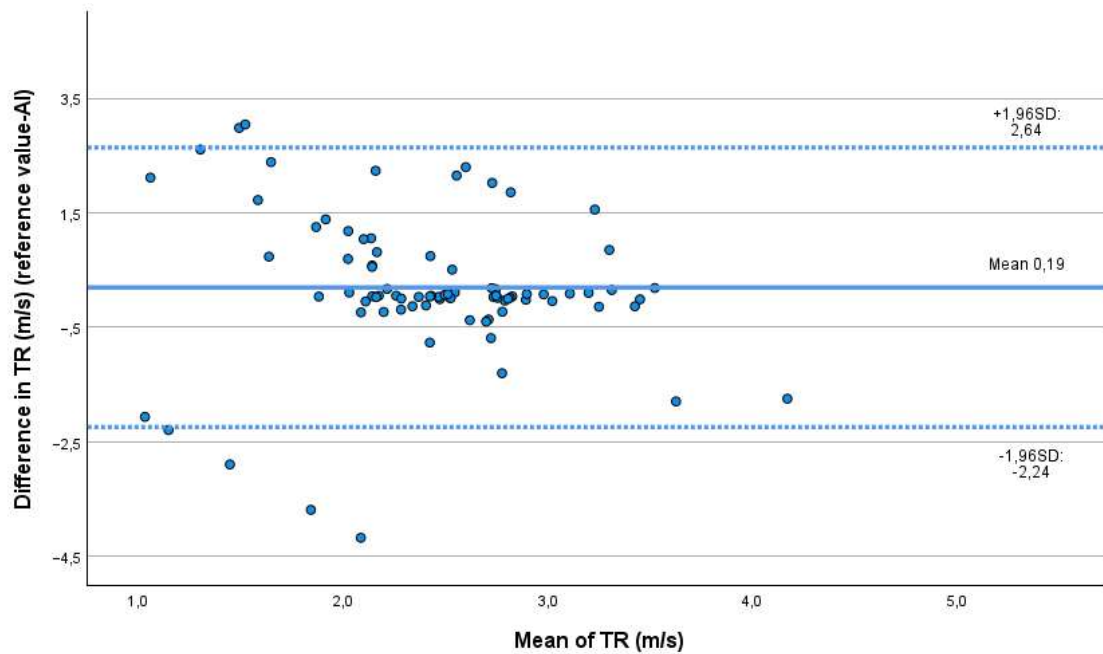


Figure 12. Bland–Altman plot for TR (m/s) for the men cohort ($n = 77$). The mean (0.19) represents the average difference between the echocardiographic reference value and the AI-based estimate. The limits of agreement are defined as $\pm 1.96SD$. TR = tricuspid valve regurgitation, AI = artificial intelligence. SD = standard deviations.

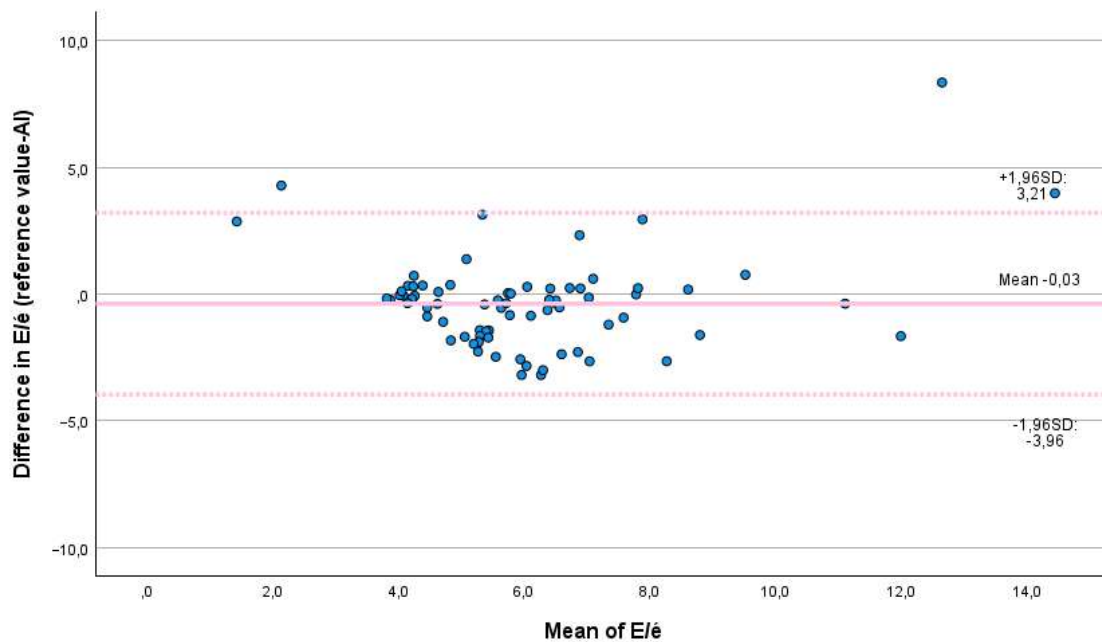


Figure 13. Bland–Altman plot for $E/\dot{e}$ for the female cohort ($n = 75$). The mean (-0.03) represents the average difference between the echocardiographic reference value and the AI-based estimate. The limits of agreement are defined as $\pm 1.96SD$. $E/\dot{e}$ = the ratio between mitral inflow velocity and myocardial early diastolic velocity during the rapid filling phase, AI = artificial intelligence. SD = standard deviations.

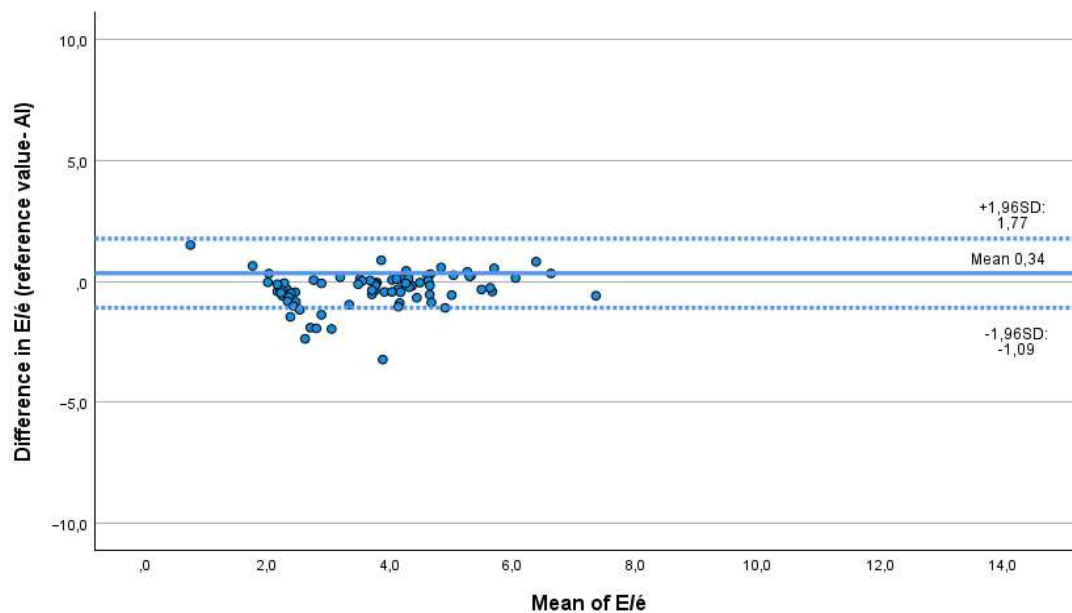


Figure 14. Bland–Altman plot for $E/\dot{e}$ for the men cohort ($n = 82$). The mean (0.34) represents the average difference between the echocardiographic reference value and the AI-based estimate. The limits of agreement are defined as $\pm 1.96SD$. $E/\dot{e}$ = the ratio between mitral inflow velocity and myocardial early diastolic velocity during the rapid filling phase, AI = artificial intelligence. SD = standard deviations.