Appendix 1

Methods

Inclusion and exclusion criteria for study subjects

Inclusion criteria:

Healthy control group:

(I) Healthy adults aged 18-79 years old.

(II) Normal blood pressure: systolic blood pressure <140 mmHg and diastolic blood pressure <90 mmHg.

(III) Physical examination reveals normal heart and lung function, normal liver and kidney function, electrolyte balance, and normal lipid and blood glucose levels.

Non-alcoholic fatty liver disease (NAFLD) group:

Patients with NAFLD who meet the following criteria, aged 19 to 80 years old:

(I) No history of alcohol consumption or excessive alcohol consumption (men: <30 g/day, women: <20 g/day).

(II) Excluding specific diseases that can cause fatty liver, such as viral hepatitis and total parenteral nutrition.

(III) In addition to the clinical manifestations of the underlying disease, symptoms such as fatigue, abdominal distension, and mild pain in the liver area may occur, often accompanied by hepatosplenomegaly.

(IV) Serum transaminases may be elevated, with alanine aminotransferase increase being the main indicator, often accompanied by elevated levels of γ-glutamyl transpeptidase, triglycerides, etc.

(V) Liver imaging by ultrasound shows characteristic features of diffuse fatty liver. See *Figure S1*.

Exclusion criteria:

Healthy control group:

(I) Patients with a history of cardiovascular disease and medication use, including coronary heart disease, congenital heart disease, heart failure, hypertension, stroke, hyperlipidemia, diabetes, and large artery inflammation.

(II) Patients with a history of endocrine, rheumatic, chronic respiratory diseases, and liver or kidney diseases and medication use (thyroid disease screened by ultrasound).

(III) Obese subjects [Body Mass Index (BMI)≥ 28 kg/m^2], professional athletes, pregnant and lactating women.

(IV) Alcohol or drug addicts, and smokers who have not quit smoking.

NAFLD group:

(I) Individuals under 19 years old or above 80.

(II) Individuals diagnosed with liver diseases other than NAFLD, such as viral or autoimmune liver diseases.

(III) Heavy alcohol consumption history (men >210 g/week, women >140 g/week).

(IV) Hypertension.

(V) Patients with malignancies.

(VI) Diabetic patients.

(VII) Pregnant and lactating women.

(VIII) Long-term smokers.

(IX) Individuals with carotid artery plaques.

(X) Patients with kidney disease.

(XI) Patients with chronic inflammation.

(XII) Patients with congenital heart disease, heart failure, severe arrhythmias, large artery inflammation, etc.

(XIII) Patients with rheumatic diseases, chronic respiratory diseases, and hyperthyroidism.

Specific examination steps

(I) Create a new case number and enter the patient's name, gender, date of birth, height, weight, systolic and diastolic blood pressure.

(II) Obtain a transverse section of the carotid artery, adjust the probe to clearly display the intima-media complex of the vascular anterior and posterior walls, ensure that the 2D ultrasound beam is perpendicular to the arterial wall, start scanning from the bifurcation of the carotid artery and continue downwards to the clavicle, continuously scan the

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carotid artery dynamically to exclude carotid artery plaques.

(III) Obtain a longitudinal section of the carotid artery: in the longitudinal section of the carotid artery, use M-mode ultrasound technique to measure the diameter and intima-media thickness (IMT) of the carotid artery during systole and diastole. Use the deformation of the lumen and intima-media thickness between systole and diastole to preliminarily assess the elastic function of the carotid artery. Compare the diastolic IMT measured by M-mode ultrasound technique with the IMT measured by Quality Intima-Media Thickness (QIMT), and exclude cases where the difference is ≥ 0.1mm.

(IV) Use QIMT technique: Place the reference line at the site of carotid artery dilatation, take the carotid artery 1.0-1.5 cm away from this reference line as the region of interest (ROI), with a length of 15mm. Start the QIMT function on the touchscreen within the ROI, follow the QIMT operation procedure, and store the last image. Perform measurements for more than 30 times and take the average value. Perform continuous measurements for 6 cardiac cycles, with the quality control index (Standard Deviation, SD) controlled within 20, calculate the average and dispersion values. In two consecutive measurements, the error is only about 0.3%, ensuring the data's reproducibility (see *Figure S2* and *Figure S3* for reference).

(V) Enable QAS function: Place the reference line at the site of carotid artery dilatation, select the common carotid artery 1.0-1.5 cm away from this reference line as the ROI, with a length of 15mm. Activate the QIMT function on the touch screen within the ROI. The quality control indicator (SD) is controlled within 20. The system automatically quantitatively detects the elastic parameters of the carotid artery in 6 cardiac cycles, including Augmentation Index (Aix), Distensibility Coefficient (DC), Compliance Coefficient (CC), Vascular Elasticity Coefficient (α), Vascular Elasticity Coefficient (β), and Pulse Wave Velocity (PWV), with the average value taken as the final arterial elasticity index value. Refer to *Figure S4* and *Figure S5*.

Standards for using abdominal ultrasound to diagnose hepatic steatosis in the supplementary information:

- Simple fatty liver
  - (i) Diffuse, point-like high echoes in the near field of the liver area, with echo intensity higher than that of the spleen and kidneys; some may show focal high echoes.
  - (ii) Attenuation of echoes in the far field, with sparse bright spots.
  - (iii) Poor visualization of intrahepatic duct structures.
  - (iv) Mild or moderate liver enlargement, with a blunt liver anterior edge. A diagnosis can be suspected with only item (1); a definitive diagnosis of fatty liver requires item (1) plus at least one other criterion.
- Fatty Liver Inflammation
  - In addition to the above imaging features, there may be changes in liver parenchyma density and signal, thickening or enlargement of the spleen, thickening of the gallbladder wall, or changes in gallbladder morphology.
- Fatty Liver Fibrosis and Cirrhosis
  - Imaging findings primarily include widening of liver fissures, increased thickness of the liver capsule, irregular liver surface, uneven liver echoes/density/signals, abnormal proportions of liver lobes, enlargement of the main portal vein diameter, increased portal vein blood flow parameters per minute, increased spleen volume index, and thickening of the gallbladder wall or changes in gallbladder morphology.

Results

The relationship between QIMT and QAS acquisition parameters and cholesterol levels (*Figure S8*)

The scatterplot depicting the correlation between various parameters measured by QIMT and QAS techniques and cholesterol levels reveals that as cholesterol levels increase, the measured values of IMT of the carotid artery, vascular elasticity coefficients α and β, and PWV also increase. These relationships are statistically significant ($P<0.0001$), indicating a positive correlation between IMT, α, β, PWV, and cholesterol levels. Additionally, as cholesterol levels increase, the Aix and the vascular CC decrease significantly ($P<0.0001$), indicating a negative correlation between Aix, CC, and cholesterol levels. Thus, the various parameters measured by QIMT and QAS techniques effectively reflect the impact of cholesterol on IMT and arterial elasticity, independent of the left and right sides.

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The relationship between QIMT and QAS acquisition parameters and low-density lipoprotein (LDL) cholesterol (*Figure S9*)

The scatterplot depicting the correlation between various parameters measured by QIMT and QAS techniques and LDL cholesterol levels reveals that as the LDL cholesterol values increase, the measured parameters of carotid IMT, vascular elastic coefficients α and β, and PWV also increase, and these associations are statistically significant (P<0.0001). This indicates a significant positive correlation between carotid IMT, vascular elastic coefficients α and β, PWV, and LDL cholesterol levels. In contrast, as LDL cholesterol values increase, the Aix and arterial CC values decrease significantly (P<0.0001), showing a significant negative correlation between Aix, CC values, and LDL cholesterol levels. This suggests that the measured parameters by QIMT and QAS techniques can effectively reflect the impact of LDL cholesterol on carotid IMT and arterial elastic function, and these correlations are independent of left and right sides.

The relationship between QIMT and QAS parameters and high-density lipoprotein (HDL) cholesterol (*Figure S10*)

The scatterplot shows that as the HDL cholesterol values increase, the vascular elastic coefficients α and β, and the Aix also increase, and these associations are statistically significant (P<0.0001). This indicates a significant positive correlation between the vascular elastic coefficients α and β, and the Aix, with HDL cholesterol levels. Additionally, as the HDL cholesterol values increase, the carotid IMT, PWV, and arterial CC decrease, and these associations are statistically significant (P<0.0001). This suggests a significant negative correlation between carotid IMT, PWV, CC values, and HDL cholesterol levels. In summary, the results indicate that the parameters measured by QIMT and QAS techniques can effectively reflect the impact of HDL cholesterol on carotid IMT and arterial elastic function, and these correlations are independent of the left and right sides.

The relationship between QIMT and QAS parameters and blood glucose levels (*Figure S11*)

The scatterplot shows that as the blood glucose values increase, the measured values of carotid IMT, vascular elastic coefficients α and β, PWV, and Aix also increase, and these associations are statistically significant (P<0.0001). This indicates a significant positive correlation between the measured values of carotid IMT, vascular elastic coefficients α and β, PWV, Aix, and blood glucose levels. Additionally, as the blood glucose values increase, the measured arterial CC decreases significantly (P<0.0001), suggesting a significant negative correlation between CC and blood glucose levels. These findings suggest that the parameters measured by QIMT and QAS techniques can effectively reflect the impact of blood glucose on carotid IMT and arterial elastic function, and these correlations are independent of the left and right sides.

The relationship between QIMT and QAS parameters and uric acid levels (*Figure S12*)

The scatterplot shows that as the uric acid levels increase, the measured values of carotid IMT, PWV, and arterial CC also increase significantly (P<0.0001). This indicates a significant positive correlation between the measured values of carotid IMT, PWV, CC, and uric acid levels. These findings suggest that the parameters measured by QIMT and QAS techniques can effectively reflect the impact of uric acid on carotid IMT and arterial elastic function, and these correlations are independent of the left and right sides.

The relationship between QIMT and QAS parameters and alanine aminotransferase (ALT) levels (*Figure S13*)

The scatterplot shows that as the ALT levels increase, the measured values of arterial CC also increase significantly (P<0.0001). This indicates a significant positive correlation between the measured values of CC and ALT levels. On the other hand, as the ALT levels increase, the measured values of carotid IMT, PWV, Aix, arterial elasticity coefficient α, and arterial elasticity coefficient β decrease significantly (P<0.0001). This suggests a significant negative correlation between the measured values of IMT, PWV, Aix, α, β, and ALT levels. These findings indicate that the parameters measured by QIMT and QAS techniques can effectively reflect the impact of ALT levels on carotid IMT and arterial elastic function, and these correlations are independent of the left and right sides.

The relationship between QIMT and QAS parameters and aspartate transaminase (AST) levels (*Figure S14*)

The scatterplot shows that as the AST levels increase, the measured values of carotid IMT, PWV, arterial elasticity coefficient α, and arterial elasticity coefficient β also increase significantly (P<0.0001). This indicates a significant positive correlation

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between the measured values of IMT, PWV, α, β and AST levels. On the other hand, as the AST levels increase, the measured values of Aix and arterial CC decrease significantly (P<0.0001). This suggests a significant negative correlation between the measured values of Aix, CC, and AST levels. These findings indicate that the parameters measured by QIMT and QAS techniques can effectively reflect the impact of AST levels on carotid IMT and arterial elastic function, and these correlations are independent of the left and right sides.

The relationship between QIMT and QAS parameters and alkaline phosphatase (ALP) levels (*Figure S15*)

The scatterplot shows that as the ALP levels increase, the measured values of carotid IMT, PWV, Aix, arterial elasticity coefficient α, and arterial elasticity coefficient β also increase significantly (P<0.0001). This indicates a significant positive correlation between the measured values of IMT, Aix, PWV, α, β and ALP levels. On the other hand, as the ALP levels increase, the measured values of arterial CC decrease significantly (P<0.0001). This suggests a significant negative correlation between the measured values of CC and ALP levels. These findings indicate that the parameters measured by QIMT and QAS techniques can effectively reflect the impact of ALP levels on carotid IMT and arterial elastic function, and these correlations are independent of the left and right sides.

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Table S1 Multivariate analysis results of factors influencing arterial elasticity coefficient α

Variable	Estimated value (95% CI)	Standard error	*t*	P
Coefficient	−0.72 (−2.056, 0.412)	0.63	−1.13	0.2595
Group fatty liver	0.511 (0.301, 0.721)	0.107	4.779	<0.0001*
Age	0.056 (0.050, 0.0.63)	0.003	16.98	<0.0001*
Gender (female)	−0.15 (−0.333, 0.060)	0.10	−1.53	0.1275
BMI	0.02 (0.005, 0.044)	0.01	1.49	0.1372
Systolic blood Pressure	0.02 (0.015, 0.034)	0.005	5.01	<0.0001*
Diastolic blood Pressure	−0.02 (−0.037, −0.009)	0.007	−3.26	0.0012*
Triglyceride	0.03 (−0.052, 0.113)	0.04	0.62	0.5324
Cholesterol	−0.06 (−0.334, 0.195)	0.14	−0.42	0.6741
Low-density lipoprotein	0.03 (−0.267, 0.350)	0.16	0.17	0.8642
High density lipoprotein	0.36 (0.013, 0.764)	0.19	1.87	0.0619
Blood Sugar	0.05 (−0.065, 0.142)	0.05	0.90	0.3659
Uric acid	−0.001 (−0.002, −0.0003)	0.0005	−2.60	0.0095*

*, The difference was statistically significant. CI, confidence interval; BMI, body mass index.

Table S2 Analysis results of multiple factors influencing vascular elasticity coefficient β

Variable	Estimated value (95% CI)	Standard error	*t*	P
Coefficient	−1.23 (−3.905, 1.109)	1.27	−0.97	0.3307
Group fatty liver	1.03 (0.610, 1.447)	0.213	4.821	<0.0001*
Age	0.11 (0.099, 0.125)	0.007	16.95	<0.0001*
Gender (female)	−0.31 (−0.670, 0.115)	0.20	−1.55	0.1213
BMI	0.04 (−0.011, 0.087)	0.03	1.42	0.1573
Systolic blood Pressure	0.05 (0.034, 0.071)	0.01	5.42	<0.0001*
Diastolic blood Pressure	−0.05 (−0.081, −0.025)	0.01	−3.70	0.0002*
Triglyceride	0.06 (−0.099, 0.230)	0.08	0.67	0.5007
Cholesterol	−0.12 (−0.676, 0.381)	0.27	−0.45	0.65
Low-density lipoprotein	0.06 (−0.525, 0.706)	0.31	0.02	0.8453
High density lipoprotein	0.77 (0.078, 1.577)	0.28	2.01	0.0451*
Blood Sugar	0.1 (−0.125, 0.287)	0.11	0.94	0.3473
Uric acid	−0.003 (−0.005, −0.001)	0.001	−2.61	0.009*

*, The difference was statistically significant. CI, confidence interval; BMI, body mass index.

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Table S3 Multivariate analysis results of factors influencing pulse wave velocity (PWV)

Variable	Estimated value (95%CI)	Standard error	*t*	P
Coefficient	−0.98 (−2.13, 0.0152)	0.55	−1.78	0.0754
Group fatty liver	0.405 (0.222, 0.588)	0.093	4.343	<0.0001*
Age	0.05 (0.0433, 0.546)	0.003	16.98	<0.0001*
Gender (female)	−0.12 (−0.2768, 0.0663)	0.09	−1.33	0.1839
BMI	0.02 (−0.0031, 0.0397)	0.01	1.59	0.1116
Systolic blood Pressure	0.04 (0.0290, 0.0453)	0.004	8.80	<0.0001*
Diastolic blood Pressure	0.001 (−0.0113, 0.0130)	0.006	0.17	0.8683
Triglyceride	0.03 (−0.0350, 0.1088)	0.04	0.91	0.3656
Cholesterol	−0.02 (−0.2659, 0.1960)	0.12	−0.21	0.8332
Low-density lipoprotein	0.01 (−0.2467, 0.2916)	0.14	0.08	0.9354
High density lipoprotein	0.29 (−0.0137, 0.6416)	0.17	1.74	0.0830
Blood Sugar	0.05 (−0.0451, 0.1350)	0.05	1.14	0.2534
Uric acid	−0.001 (−0.0023, −0.0004)	0.0005	−3.01	0.0027*

*, The difference was statistically significant. CI, confidence interval; BMI, body mass index.

Table S4 Multivariate analysis results of factors influencing Aix

Variable	Estimated value (95% CI)	Standard error	t	P
Coefficient	−32.89 (−43.173, −23.604)	5.02	−6.56	<0.0001*
Group fatty liver	0.65 (−1.013, 2.316)	0.848	0.768	0.44241
Age	0.48 (0.435, 0.537)	0.02	18.48	<0.0001*
Gender (female)	7.17 (5.731, 8.851)	0.80	8.93	<0.0001*
BMI	−0.02 (−0.235, 0.154)	0.10	−0.24	0.8091
Systolic blood Pressure	0.12 (0.035, 0.183)	0.04	3.06	0.0023*
Diastolic blood Pressure	0.17 (0.074, 0.295)	0.06	3.03	0.0025*
Triglyceride	−0.25 (−0.923, 0.384)	0.33	−0.76	0.4490
Cholesterol	0.17 (−1.849, 2.351)	1.07	0.16	0.8743
Low-density lipoprotein	−1.62 (−4.182, 0.713)	1.25	−1.30	0.1952
High density lipoprotein	0.1 (−3.066, 2.892)	1.52	0.07	0.9468
Blood Sugar	−0.37 (−1.131, 0.507)	0.42	−0.89	0.3760
Uric acid	−0.01 (−0.019, −0.002)	0.004	−2.69	0.0072*

*, The difference was statistically significant. CI, confidence interval; BMI, body mass index; Aix, augmentation index.

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Table S5 Multivariate analysis results of factors influencing vascular DC

Variable	Estimated value (95% CI)	Standard error	*t*	P
Coefficient	0.0857 (0.07800, 0.09400)	3.98	21.35	<0.0001*
Group fatty liver	–0.0017 (0.0031, –0.0004)	0.0007	–2.560	0.01064*
Age	–0.0004 (–0.00041, –0.00033)	2.09	–17.77	<0.0001*
Gender (female)	0.0007 (–0.00058, 0.00190)	6.351	0.99	0.3241
BMI	–0.0002 (–0.00039, –0.00008)	7.92	–2.88	0.0041*
Systolic blood Pressure	–0.0003 (–0.00037, –0.00025)	3.00	–10.15	<0.0001*
Diastolic blood Pressure	0.00001 (–0.00008, 0.00010)	4.50	0.19	0.8528
Triglyceride	–0.0004 (–0.00091, 0.00013)	2.66	–1.40	0.1630
Cholesterol	0.0008 (–0.00087, 0.00250)	8.55	–1.40	0.1630
Low-density lipoprotein	–0.001 (–0.00300, 0.00088)	9.96	–1.02	0.3059
High density lipoprotein	–0.003 (–0.00550, –0.00074)	1.21	–2.49	0.0131*
Blood Sugar	0.0003 (–0.00033, 0.00098)	3.33	0.86	0.3915
Uric acid	0.0000 (0.00000, 0.00001)	3.42	1.16	0.2469

*, The difference was statistically significant. CI, confidence interval; BMI, body mass index; DC, distensibility coefficient.

Table S6 Multivariate analysis results of factors influencing vascular CC

Variable	Estimated value (95% CI)	Standard error	*t*	P
Coefficient	2.52 (2.2155, 2.8805)	0.17	14.84	<0.0001*
Group fatty liver	–0.13 (–0.1891, –0.0760)	0.03	–4.60	<0.0001*
Age	0.009 (–0.0105, –0.0070)	0.0009	–9.88	<0.0001*
Gender (female)	–0.04 (–0.0973, 0.0087)	0.03	–1.14	0.2534
BMI	–0.004 (–0.0108, 0.0024)	0.003	–1.14	0.2534
Systolic blood Pressure	–0.01 (–0.0137, –0.0086)	0.001	–8.54	<0.0001*
Diastolic blood Pressure	0.004 (0.0006, 0.0081)	0.002	2.23	0.0262*
Triglyceride	0.0001 (–0.0231, 0.0213)	0.01	0.01	0.9921
Cholesterol	–0.02 (–0.0902, 0.0525)	0.04	–0.61	0.5406
Low-density lipoprotein	0.03 (–0.0531, 0.1132)	0.04	0.81	0.4154
High density lipoprotein	–16 (–0.2250, –0.0226)	0.05	–2.22	0.0263*
Blood Sugar	0.02 (–0.0046, 0.0511)	0.01	1.47	0.1432
Uric acid	0.0005 (0.0002, 0.0007)	0.0001	3.20	0.0014*

*, The difference was statistically significant. CI, confidence interval; BMI, body mass index; CC, compliance coefficient.

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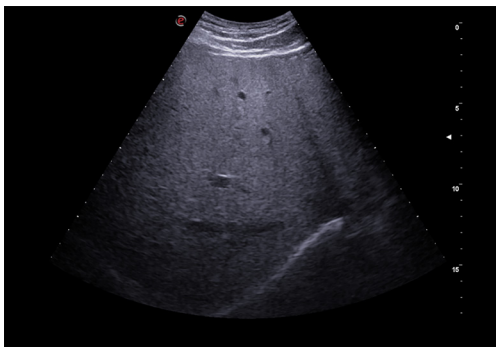

Figure S1 Ultrasound sonogram of fatty liver.

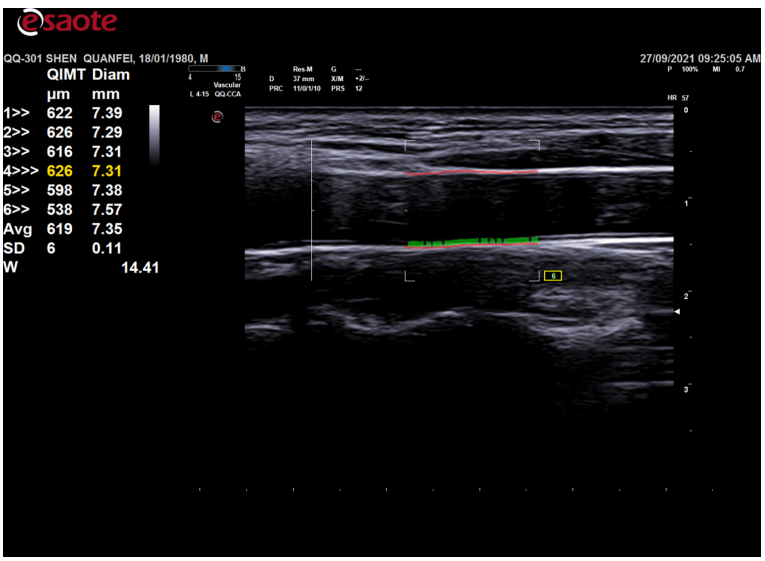

Figure S2 QIMT ultrasonic image of IMT detection (:external wall of the carotid artery; : IMT thickness). QIMT, Quality Intima-media Thickness; IMT, Intima-media Thickness.

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QIMT		
Right QIMT		
Right QIMT	619	μm
QIMT	619	μm
SD	6	μm
Diameter	7.4	mm
SD	0.11	mm
Width	14.4	mm
Left QIMT		
Left QIMT	513	μm
QIMT	513	μm
SD	18	μm
Diameter	6.6	mm
SD	0.02	mm
Width	14.5	mm

Figure S3 mean IMT after processing by the backend system. QIMT, Quality Intima-media Thickness; IMT, Intima-media Thickness; SD, Standard Deviation.

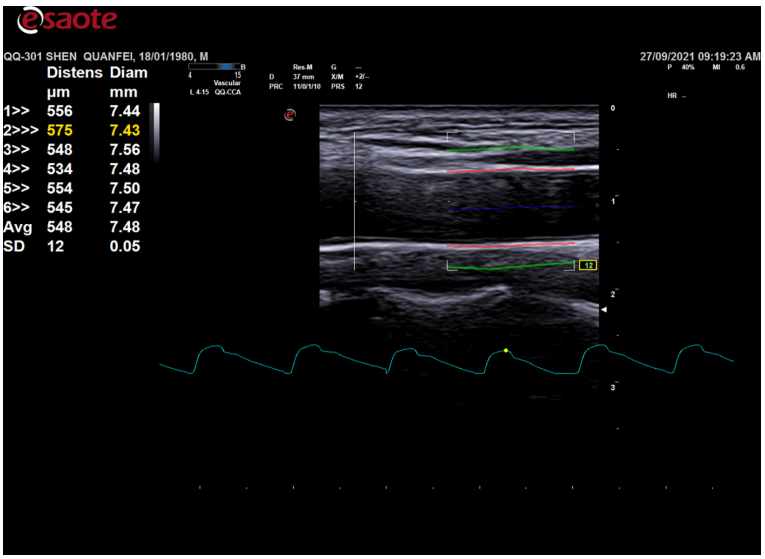

Figure S4 Ultrasonic image of various elastic parameters of the carotid artery detected by QAS technique (▬▬: Central position of the common carotid artery; ▬▬: Outer layer of the common carotid artery; ┈┈┈: Virtual line representing carotid artery pulsation). Abbreviations: QAS, Quantitative Artery Stiffness.

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Right CCA QAS

Distension	548	µm	SD	12	µm
Diameter	7.5	mm	SD	0.05	mm
Brachial Sys Pres	115	mmHg	Brachial Dias Pres	75	mmHg

Stiffness		
DC	0.04	1/kPa
CC	1.66	mm²/kPa
α	2.23	
β	4.61	
PW Vel	5.01	m/s

Local Pressure		
LPsys	105.4	mmHg
LPdias	75.0	mmHg
P(T1)	102.8	mmHg
AP	2.6	mmHg
AIx	8.68	%
ICP	36	ms
ED	304	ms

Graphs

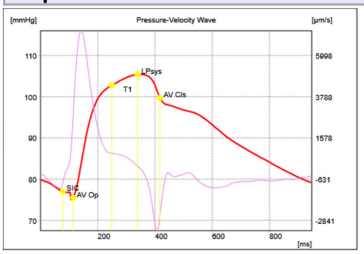

Figure S5 Values of various elastic parameters of the carotid artery after backend data processing. QAS, Quantitative Arterial Stiffness; DC, Distensibility Coefficient; CC, Compliance Coefficient; α, Stiffness Parameter α; β, Stiffness Parameter β; PW Vel, Pulse Wave Velocity; Aix, Augmentation Index.

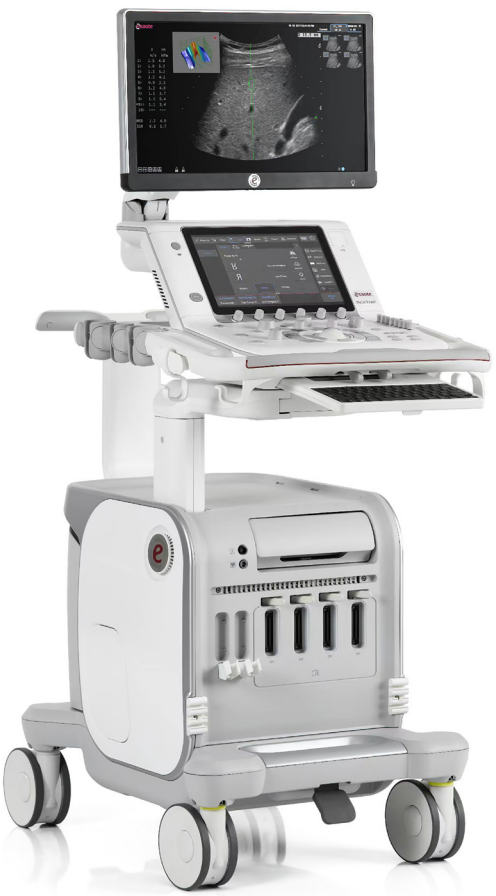

Figure S6 Instrumentation embedded with IMS and QAS technologies. IMT, Intima-media Thickness; QAS, Quantitative Arterial Stiffness.

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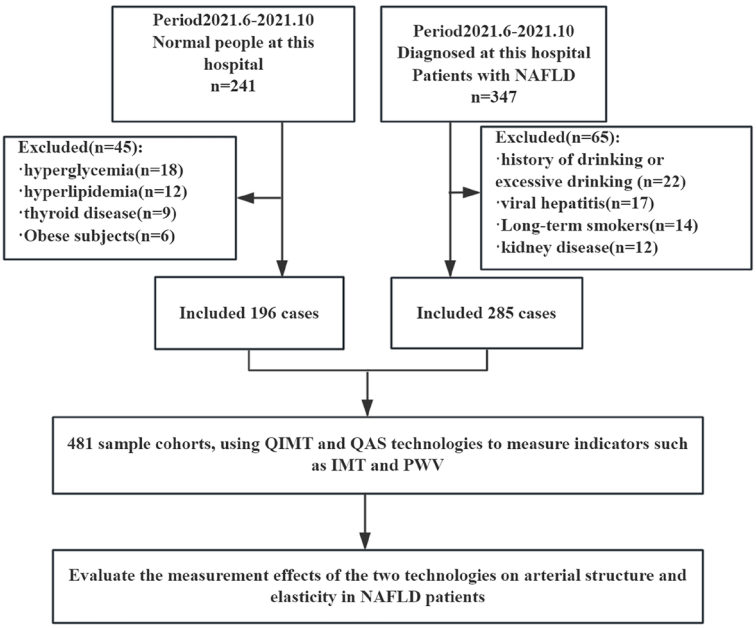

Figure S7 Participant Inclusion Flowchart. QIMT, Quality Intima-media Thickness; QAS, Quantitative Arterial Stiffness; IMT, Intima-media Thickness; PWV, Pulse Wave Velocity; NAFLD, non-alcoholic fatty liver disease.

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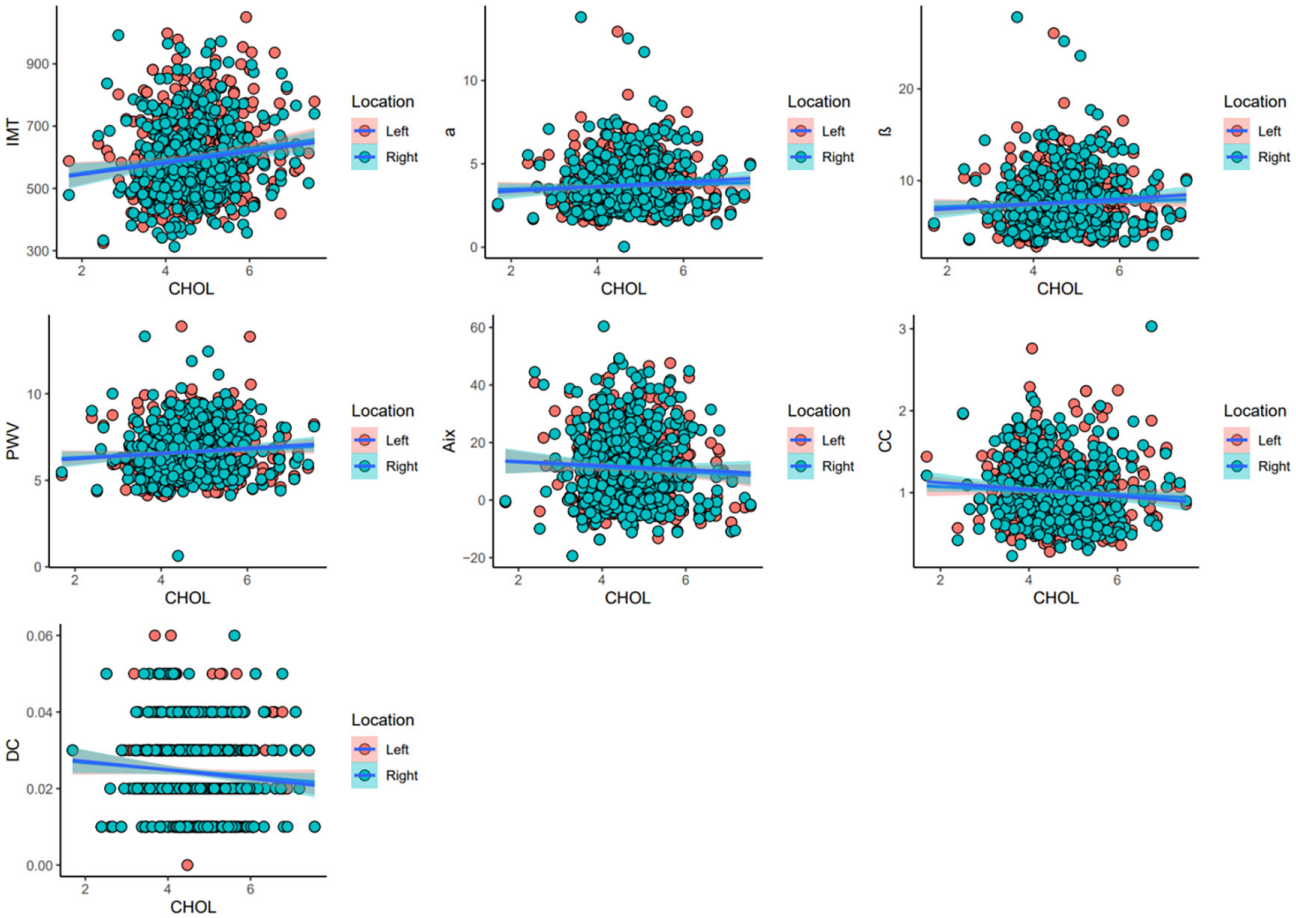

Figure S8 Scatterplot depicting the correlation between various parameters measured by Quality Intima-media Thickness (QIMT) and Quantitative Arterial Stiffness (QAS) techniques and cholesterol levels. IMT, intima-media thickness; PWV, Pulse Wave Velocity; DC, Distensibility Coefficient; CC, Compliance Coefficient; Aix, Augmentation Index; α, Stiffness Parameter α; β, Stiffness Parameter β; QIMT, Quality Intima-media Thickness; NAFLD, non-alcoholic fatty liver disease.

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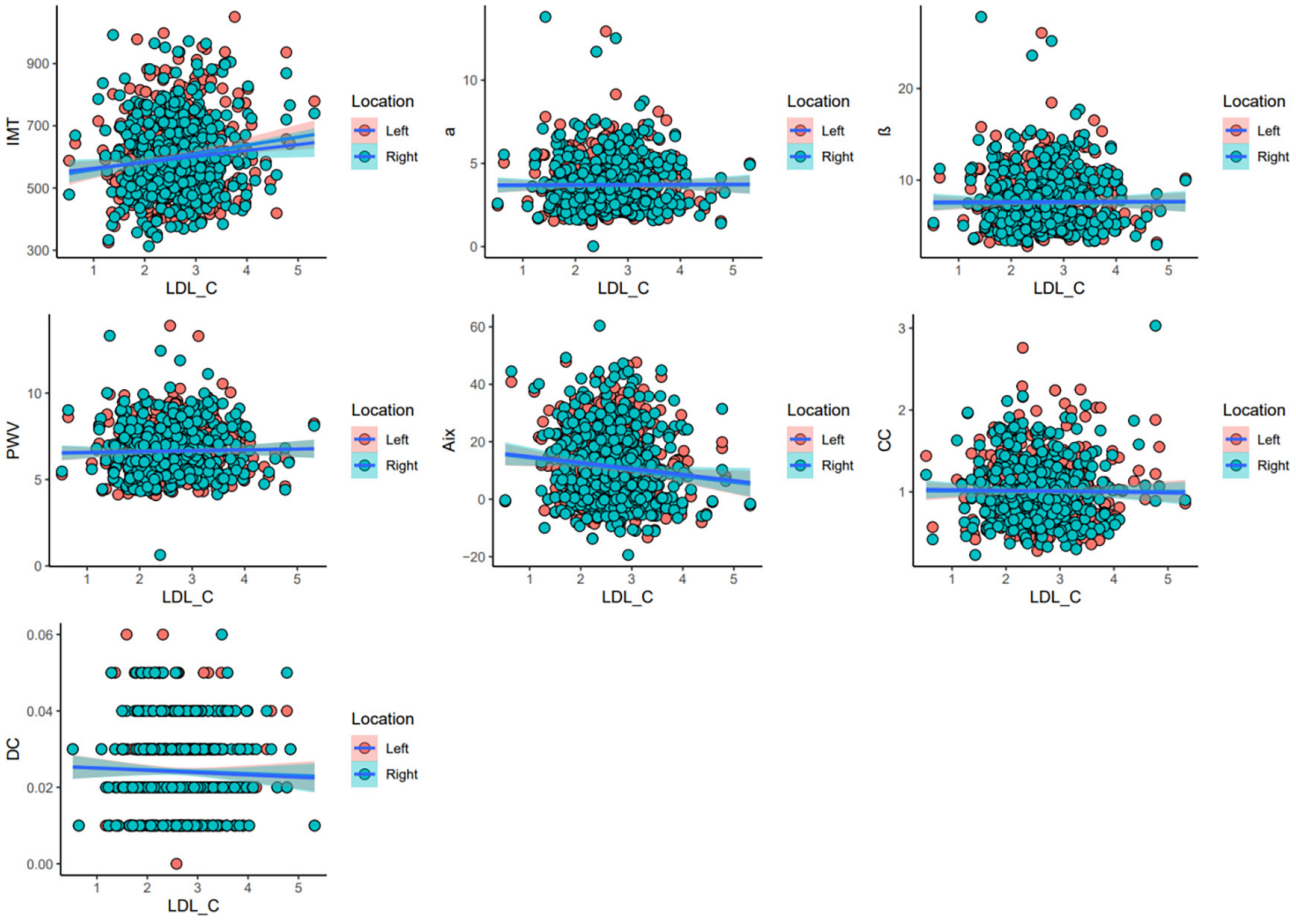

Figure S9 Scatterplot depicting the correlation between various parameters measured by Quality Intima-media Thickness (QIMT) and Quantitative Arterial Stiffness (QAS) techniques and low-density lipoprotein (LDL) cholesterol levels. IMT, intima-media thickness; PWV, Pulse Wave Velocity; DC, Distensibility Coefficient; CC, Compliance Coefficient; Aix, Augmentation Index; α, Stiffness Parameter α; β, Stiffness Parameter β; QIMT, Quality Intima-media Thickness; NAFLD, non-alcoholic fatty liver disease.

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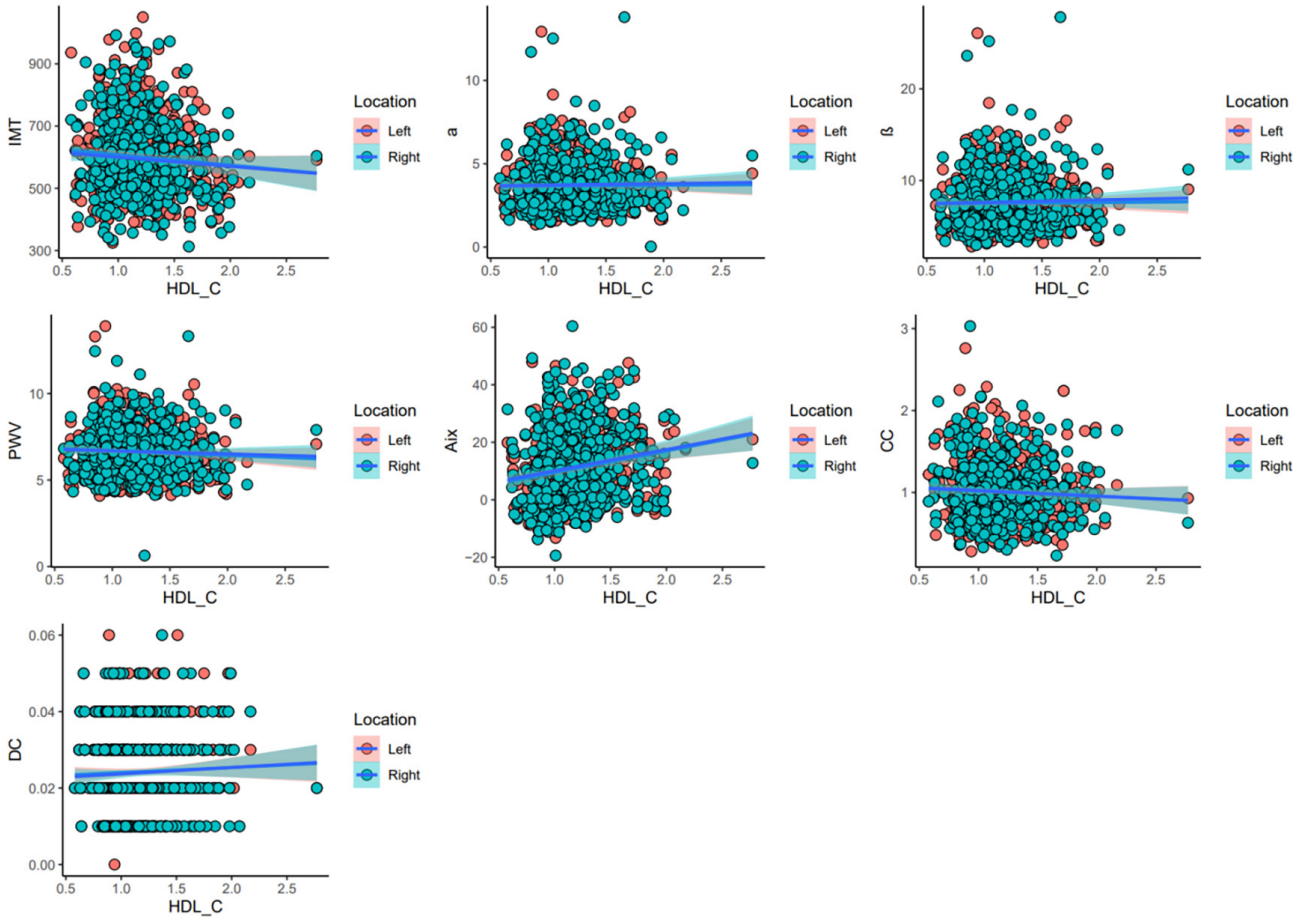

Figure S10 Scatterplot depicting the correlation between various parameters measured by Quality Intima-media Thickness (QIMT) and Quantitative Arterial Stiffness (QAS) techniques and high-density lipoprotein (HDL) cholesterol levels. IMT, intima-media thickness; PWV, Pulse Wave Velocity; DC, Distensibility Coefficient; CC, Compliance Coefficient; Aix, Augmentation Index; α, Stiffness Parameter α; β, Stiffness Parameter β; QIMT, Quality Intima-media Thickness; NAFLD, non-alcoholic fatty liver disease.

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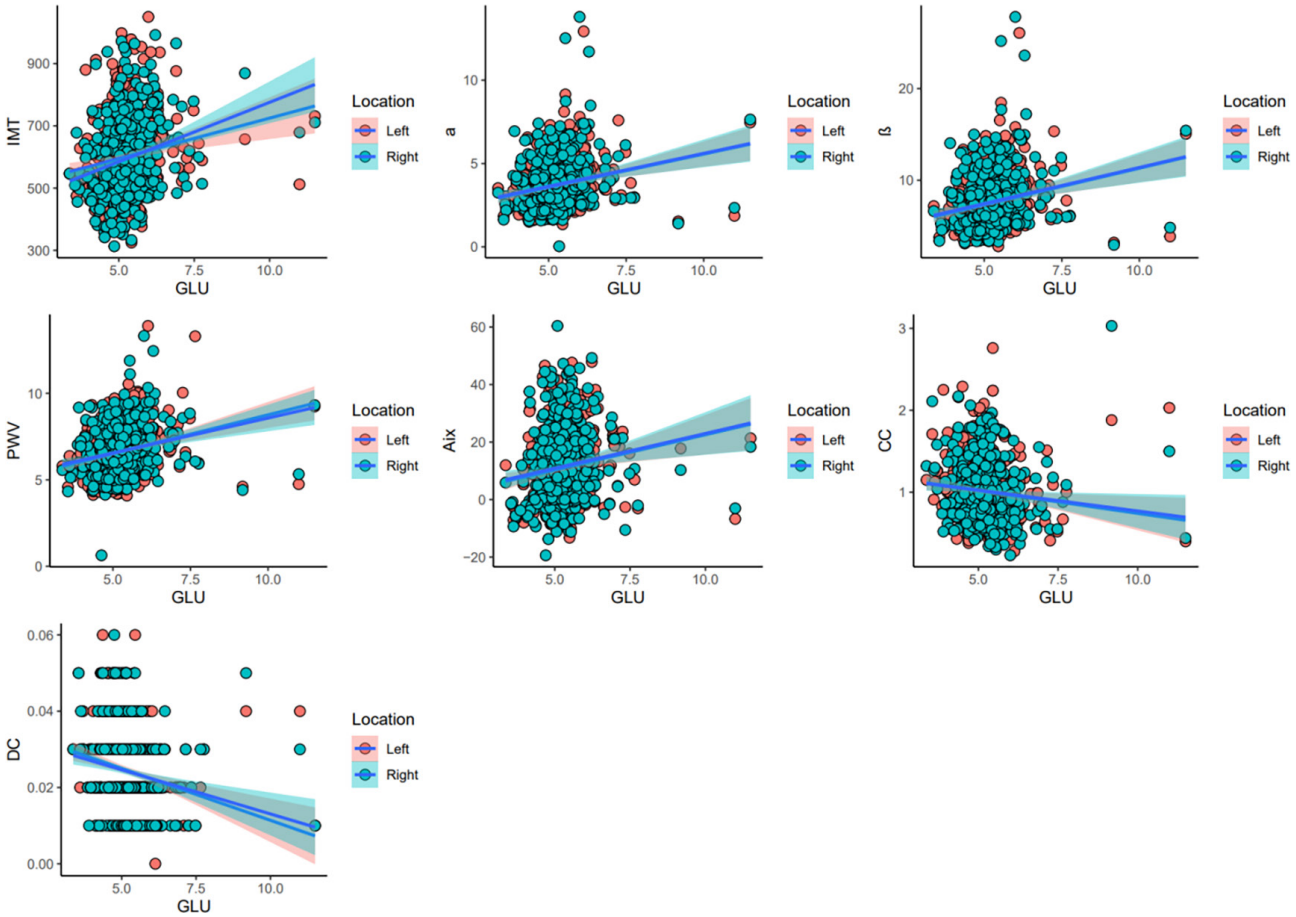

Figure S11 Scatterplot depicting the correlation between various parameters measured by Quality Intima-media Thickness (QIMT) and Quantitative Arterial Stiffness (QAS) techniques and blood glucose levels. IMT, intima-media thickness; PWV, Pulse Wave Velocity; DC, Distensibility Coefficient; CC, Compliance Coefficient; Aix, Augmentation Index; α, Stiffness Parameter α; β, Stiffness Parameter β; QIMT, Quality Intima-media Thickness; NAFLD, non-alcoholic fatty liver disease.

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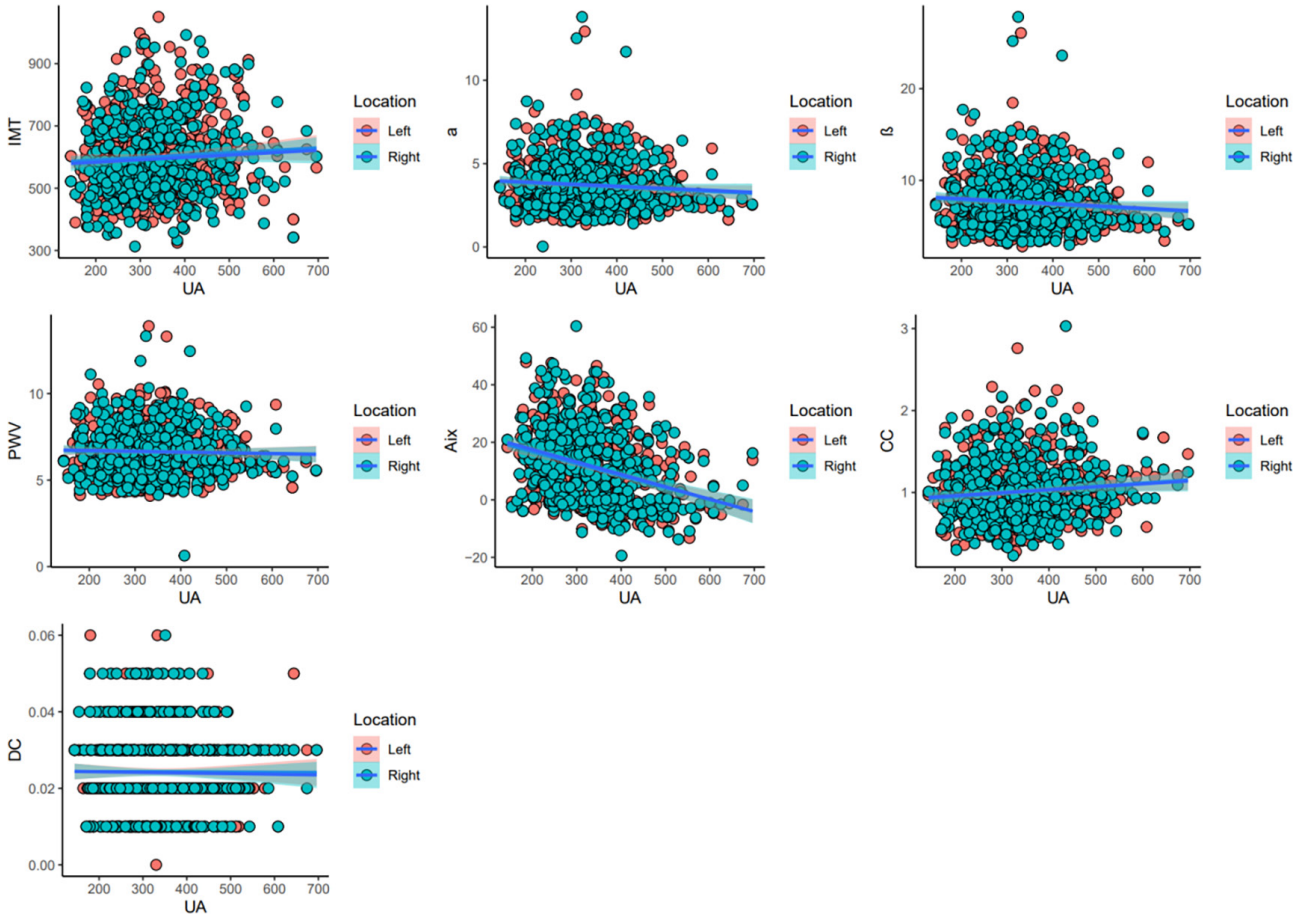

Figure S12 Scatterplot depicting the correlation between various parameters measured by Quality Intima-media Thickness (QIMT) and Quantitative Arterial Stiffness (QAS) techniques and uric acid levels. IMT, intima-media thickness; PWV, Pulse Wave Velocity; DC, Distensibility Coefficient; CC, Compliance Coefficient; Aix, Augmentation Index; α, Stiffness Parameter α; β, Stiffness Parameter β; QIMT, Quality Intima-media Thickness; NAFLD, non-alcoholic fatty liver disease.

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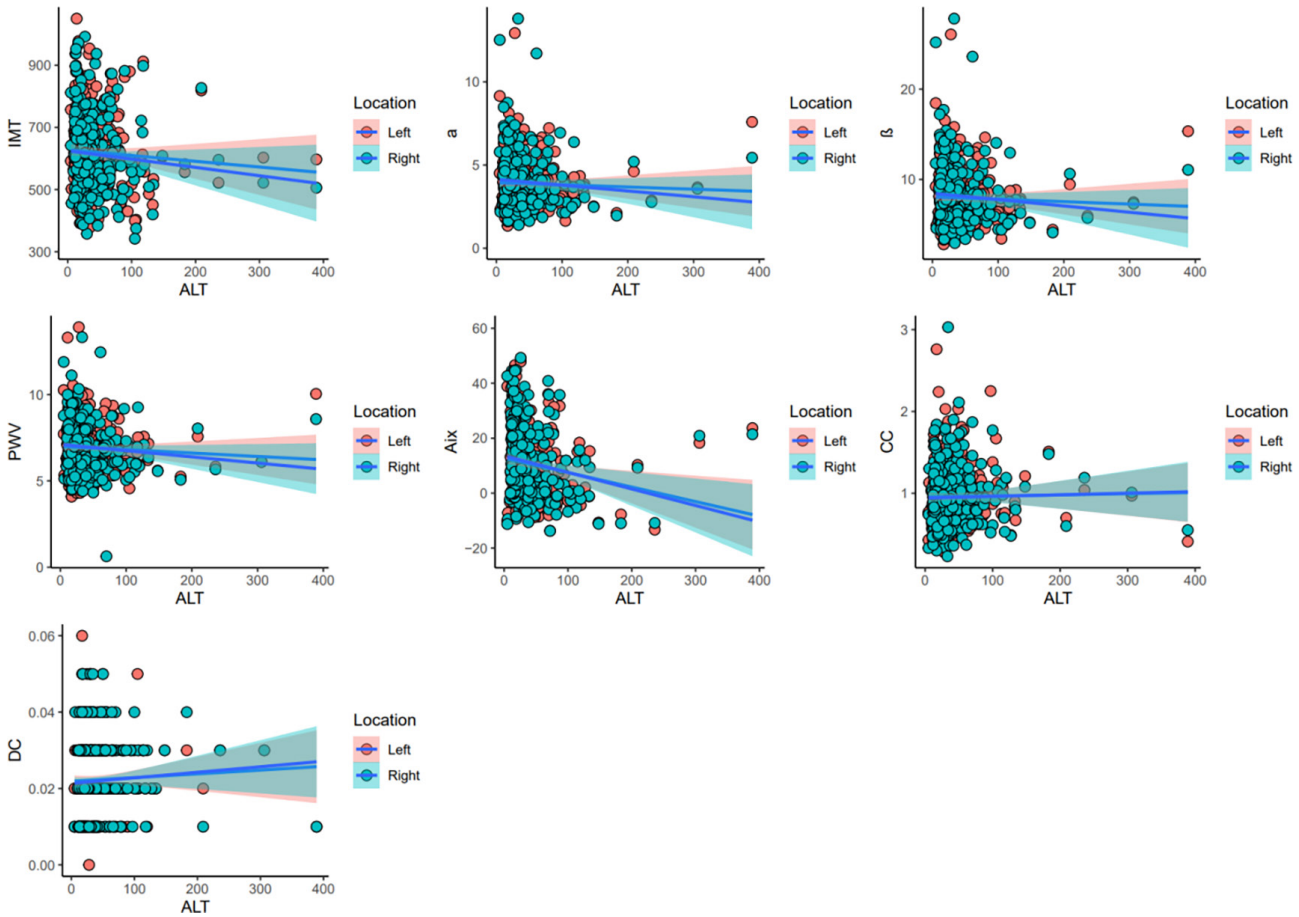

Figure S13 Scatterplot depicting the correlation between various parameters measured by Quality Intima-Media Thickness (QIMT) and Quantitative Arterial Stiffness (QAS) techniques and alanine aminotransferase (ALT) levels. IMT, intima-media thickness; PWV, Pulse Wave Velocity; DC, Distensibility Coefficient; CC, Compliance Coefficient; Aix, Augmentation Index; α, Stiffness Parameter α; β, Stiffness Parameter β; QIMT, Quality Intima-media Thickness; NAFLD, non-alcoholic fatty liver disease.

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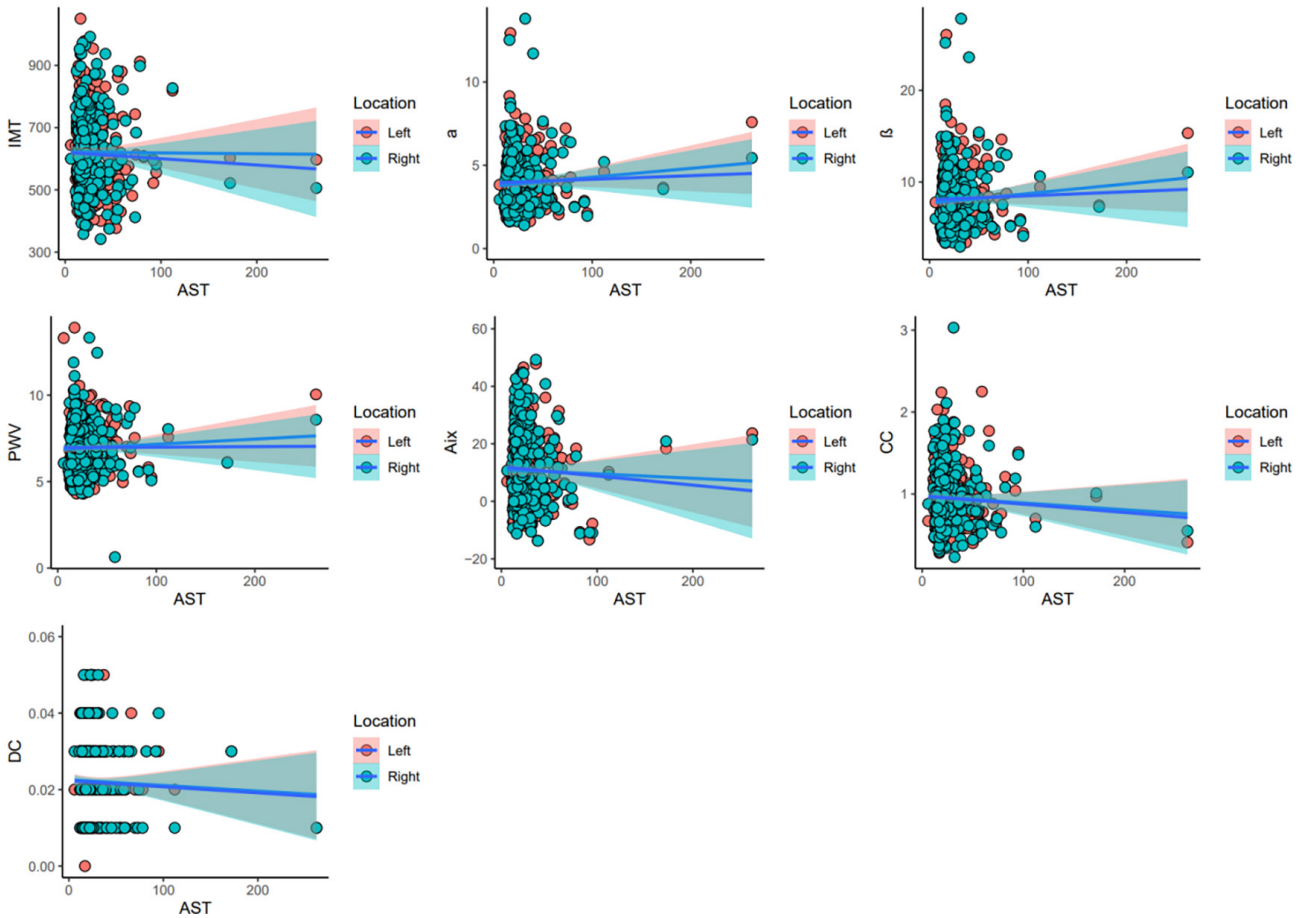

Figure S14 Scatterplot depicting the correlation between various parameters measured by QIMT and QAS techniques and aspartate transaminase (AST) levels. IMT, intima-media thickness; PWV, Pulse Wave Velocity; DC, Distensibility Coefficient; CC, compliance coefficient; Aix, Augmentation Index; α, Stiffness Parameter α; β, Stiffness Parameter β; QIMT, Quality Intima-media Thickness; QAS, Quantitative Arterial Stiffness; NAFLD, non-alcoholic fatty liver disease.

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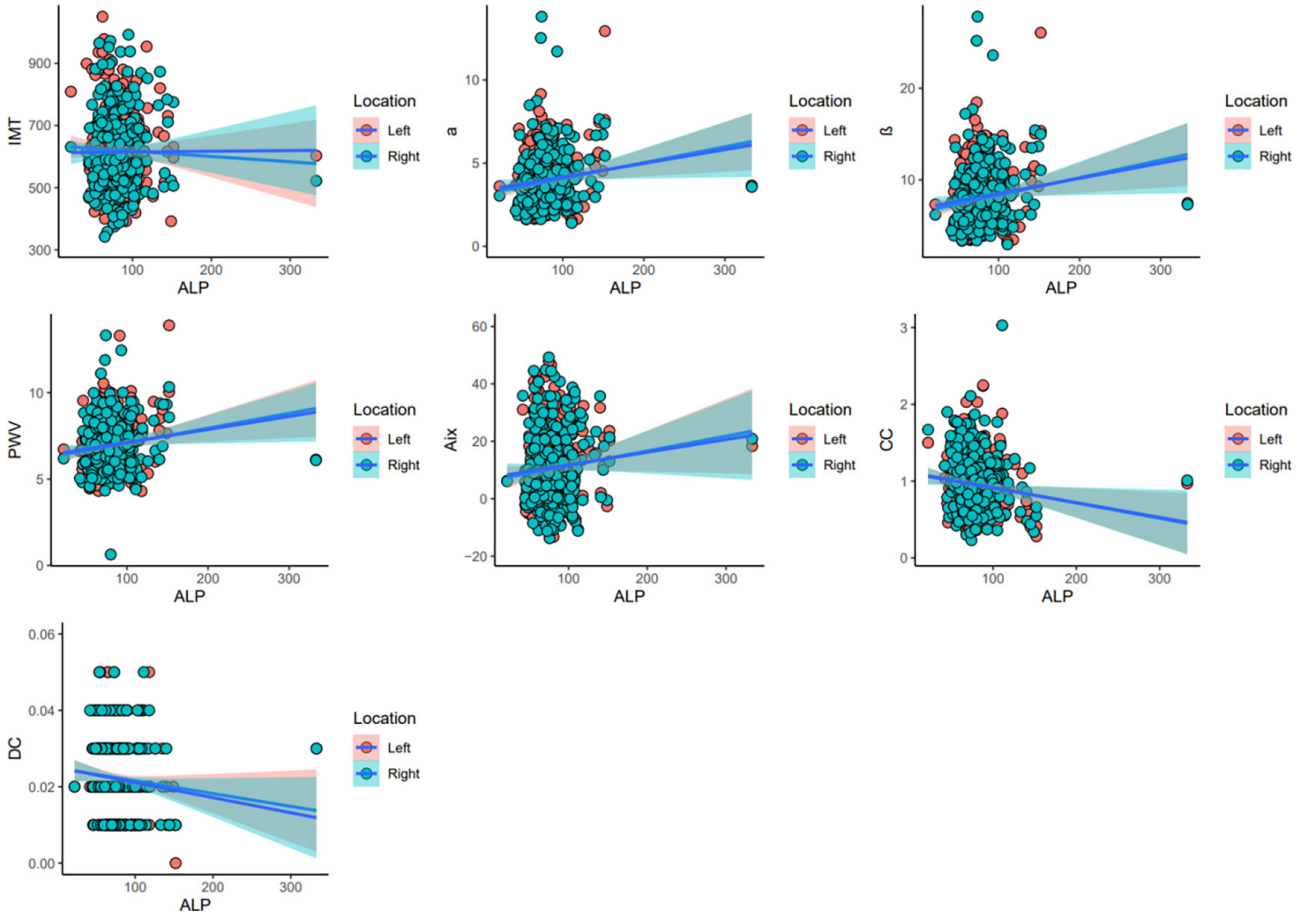

Figure S15 Scatterplot depicting the correlation between various parameters measured by QIMT and QAS techniques and alkaline phosphatase (ALP) levels. IMT, intima-media thickness; PWV, Pulse Wave Velocity; DC, Distensibility Coefficient; CC, Compliance Coefficient; Aix, Augmentation Index; α, Stiffness Parameter α; β, Stiffness Parameter β; QIMT, Quality Intima-media Thickness; QAS, Quantitative Arterial Stiffness; NAFLD, non-alcoholic fatty liver disease.

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