

Supplementary material

Xu L, Fan T, Liang Y, et al. Association between interleukin 17A levels and left atrial spontaneous echo contrast in patients with nonvalvular atrial fibrillation. *Pol Arch Intern Med.* 2022; 132: 16252. doi:10.20452/pamw.16252

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Table S1 Baseline characteristics of study patients

	non-LAT/LASEC group	LAT/LASEC group	<i>P</i> value
No. participants	126	53	
Male, n (%)	74(59)	32(60)	0.61
BMI, kg/m ² , mean (SD)	23.1(2.2)	22.8(2.3)	0.12
Heart rate, bpm, mean (SD)	76(10)	71(11)	0.19
History of CAD, n (%)	24(19)	11(20)	0.06
Hypertension, n (%)	73(58)	37(69)	0.005
Diabetes mellitus, n (%)	37(29)	17(32)	0.32
Prior heart failure, n (%)	24(19)	15(28)	0.002
Hyperlipidemia, n (%)	54(43)	24(45)	0.42
CHADS ₂ -VASc score >2, n (%)	77(61)	43(82)	<0.001
Framingham Stroke Risk Score, median (IQR)	21.8 (16.3-30.6)	32.5(18.1-36.2)	0.25
History of TIA, n (%)	10(8)	6(11)	0.13
Persistent atrial fibrillation, n (%)	59(47)	32(60)	0.02
ACEIs or ARBs, n (%)	36(29)	14(27)	0.07
β-Blocker, n (%)	67(53)	28(55)	0.15
CCBs, n (%)	51(40)	19(36)	0.06
Statins, n (%)	22(17)	11(21)	0.12
Diuretics, n (%)	12(9)	7(13)	0.07
Insulin, n (%)	25(20)	9(17)	0.32

Abbreviation: BSA, body surface area; BMI, body mass index; CAD, coronary artery disease; TIA, transient ischemic attack; CHADS₂: cardiac failure, hypertension, age, diabetes, stroke; ACEIs, angiotensin-converting enzyme inhibitors; ARBs, angiotensin receptor blockers; CCBs, calcium channel blockers.

Table S2 Laboratory and echocardiographic datas of study patients

	non-LAT/LASEC group	LAT/LASEC group	<i>P</i> value
Laboratory data			
PT-INR, mean (SD)	2.5 (0.21)	2.0 (0.36)	0.04
D-Dimer, µg/mL, median (IQR)	0.51 (0.20-0.81)	0.49 (0.22-0.83)	0.21
Ccr, mL/min, median (IQR)	59 (31-91)	64 (34-92)	0.41
CRP, mg/dL, median (IQR)	0.16 (0.12-1.27)	0.18(0.13-1.19)	0.12
NT-proBNP, pg/mL, median (IQR)	137 (86-230)	368 (179-487)	0.01
transthoracic echocardiographic parameters			
LVEF, %, mean (SD)	67 (8)	61 (9)	0.046
LAD, mm, mean (SD)	42 (5.1)	46 (4.3)	0.001
IVSD, mm, mean (SD)	9.1 (1.8)	9.8 (2.2)	0.54
LVPWD, mm, mean (SD)	9.2 (2.3)	8.9 (1.8)	0.12
LVEDV, mL, mean (SD)	80 (17)	83 (16)	0.27
LVESV, mL, mean (SD)	33 (13)	34 (9)	0.07
LAEF, %, median (IQR)	65 (48-79)	55(43-70)	0.03
transesophageal echocardiographic parameters			
LAD, mm, mean (SD)	43 (8.6)	48 (7.3)	0.006
LAAFV, m/s, median (IQR)	0.42 (0.21-0.53)	0.31 (0.19-0.50)	0.03

Abbreviation: PT-INR: prothrombin time-international normalized ratio; APTT: activated partial thromboplastin time; Ccr: creatinine clearance; CRP: C-reactive protein; NT-proBNP: N-terminal pro-type natriuretic peptide; IVSD; interventricular septal thickness in end-diastolic period; LAD: left atrial diameter; LVEDV: left ventricular end-diastolic volume; LVEF:left ventricular ejection fraction; LVESV: left ventricular end-systolic volume; LVH: left ventricular hypertrophy; LVPW: left ventricular posterior wall thickness in end-diastolic period;A:The peak velocity during late diastole of anterior mitral leaflet; E:the peak velocity during early diastole of anterior mitral leaflet;LAEF:left atrial emptying fraction; LAAFV: left atrial appendage flow velocity.

Table S3 AF-related cytokines levels of study patients

	non-LAT/LASEC group	LAT/LASEC group	<i>P</i> value
IL-17A, pg/ml, median (IQR)	0.68 (0.34-1.03)	3.50(1.62-7.20)	<0.001
IL-6, pg/ml, median (IQR)	0.45 (0.20-1.12)	1.25 (0.91-2.27)	<0.001
IL-10, pg/ml, median (IQR)	543.0 (450.50-613.8)	339.0(301.9-425.76)	<0.001
IL-23, pg/ml, median (IQR)	15.33 (11.53-19.61)	13.82(10.92-19.20)	0.31
TGF- β 1, pg/ml, mean (SD)	2587.0 (747.10)	2418.0 (765.20)	0.28

TGF- β 1: Transforming growth factor beta 1.

Table S4 Univariable and Multivariable logistic regression analyses: Association of AF-related cytokines and Risk of LAT/LASEC

Variables	Unadjusted		Model 1		Model 2		Model 3	
	OR(95%CI)	<i>P</i> Value	OR(95% CI)	<i>P</i> Value	OR(95% CI)	<i>P</i> Value	OR(95% CI)	<i>P</i> Value
IL-17A, pg/ml	1.86 (1.45-2.37)	<0.001	1.59 (1.31-1.98)	<0.001	1.60 (1.29-1.99)	<0.001	1.35 (1.12-1.64)	0.003
IL-6, pg/ml	1.33 (1.17-1.61)	<0.001	1.45 (1.12-1.81)	0.002	1.22 (0.87-1.63)	0.18	1.21 (0.80-1.53)	0.06
IL-10, pg/ml	0.72 (0.60-0.98)	<0.001	1.27 (0.99-1.52)	0.08	0.64 (0.44-0.99)	0.02	0.67 (0.39-1.23)	0.12
C statistic /AIC								
IL-17A, pg/ml	0.81/1487.31		0.70/1449.36		0.73/1443.21		0.75/1428.04	
IL-6, pg/ml	0.72/1457.25		0.71/1451.91		0.72/1432.52		0.73/1431.23	
IL-10, pg/ml	0.78/1465.41		0.80/1452.63		0.81/1433.66		0.83/1426.51	

Model 1: adjusted for age, sex, hyperlipidemia, and persistent atrial fibrillation; Model 2: adjusted for Model 1 plus PT-INR, NT-proBNP, LAD, and LVEF; Model 3: adjusted for Model 2 plus LAEF and LAAFV. PT-INR: prothrombin time-international normalized ratio; NT-proBNP: N-terminal pro-type natriuretic peptide; LAD: left atrial diameter; LVEF: left ventricular ejection fraction; LAEF: left atrial emptying fraction; LAAFV: left atrial appendage flow velocity.

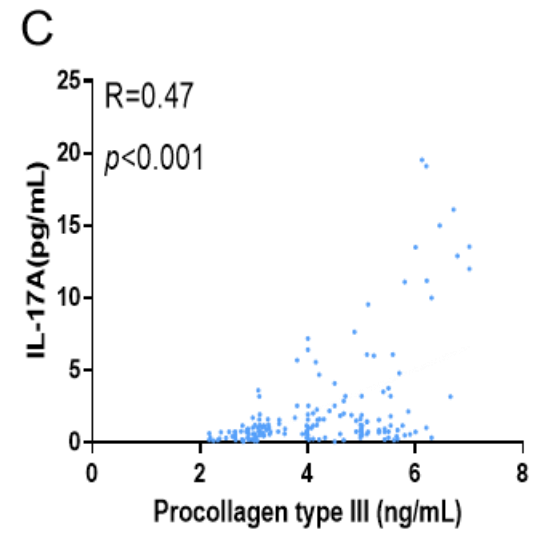
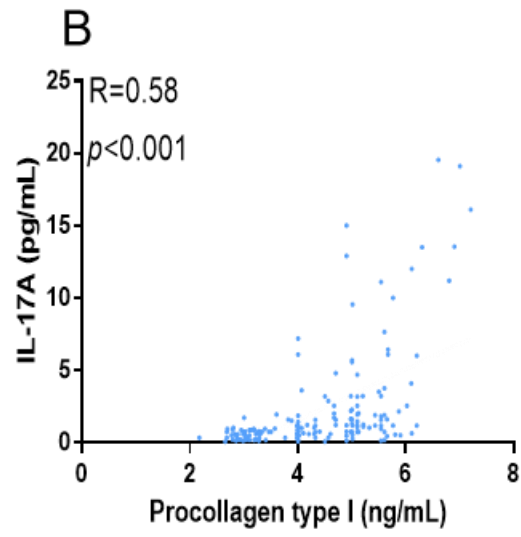
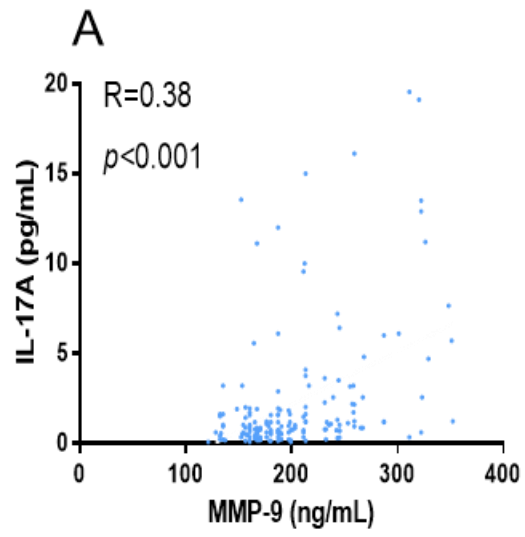


Figure S1

Figure S1. Association of IL-17A with fibrosis parameters in patients. A, Correlation between the proportion of the levels of IL-17A and matrix metalloproteinase 9. B, Correlation between the levels of IL-17A and procollagen type I. C, Correlation between the levels of IL-17A and procollagen type III.