SUPPLEMENTARY DATA

Table 1 of the supplementary data

Variables used for calculation of the propensity score

Variable	Variable type	Details	Description
Sex	Binary	male, female	As described in patient file
Age (at the procedure)	Continuous	y	Years between date of birth and date of the procedure
Diabetes Mellitus	Binary	Yes/no	As described in medical history
Stroke	Binary	Yes/no	As described in medical history
Hypertension	Binary	Yes/no	As described in medical history
Vascular disease	Binary	Yes/no	As described in medical history
AF type	Categorical	3 categories: paroxysmal, persistent, long-standing persistent	According to current guidelines
Left atrial volume index	Continuous		Preferred: 2-plane measurement. If not available: 1 plane
Atrial fibrillation history duration (log transformed)	Continuous		Time from first diagnosis of atrial fibrillation to hybrid ablation
Body mass index	Continuous		$\frac{weight\ (kg)}{length(m)^2}$
History of congestive heart disease	Binary	Yes/no	As described in medical history
Mitral valve insufficiency	Categorical	3 categories: (i) none-mild, (ii) mild-moderate, (iii) moderate-severe	As described in the preprocedural echocardiographic report
Left atrial appendage exclusion	Binary	Yes/no	As described in the surgical report
Lesion set	Categorical	3 categories: PVI only, PVI + Dallas lesion set', 'PVI + box lesion'	As described in the surgical report
Ganglion plexus ablation	Binary	Yes/no	As described in the surgical report
Center of thoracoscopic ablation	Categorical	3 categories (A, B, C)	

Table 2 of the supplementary data

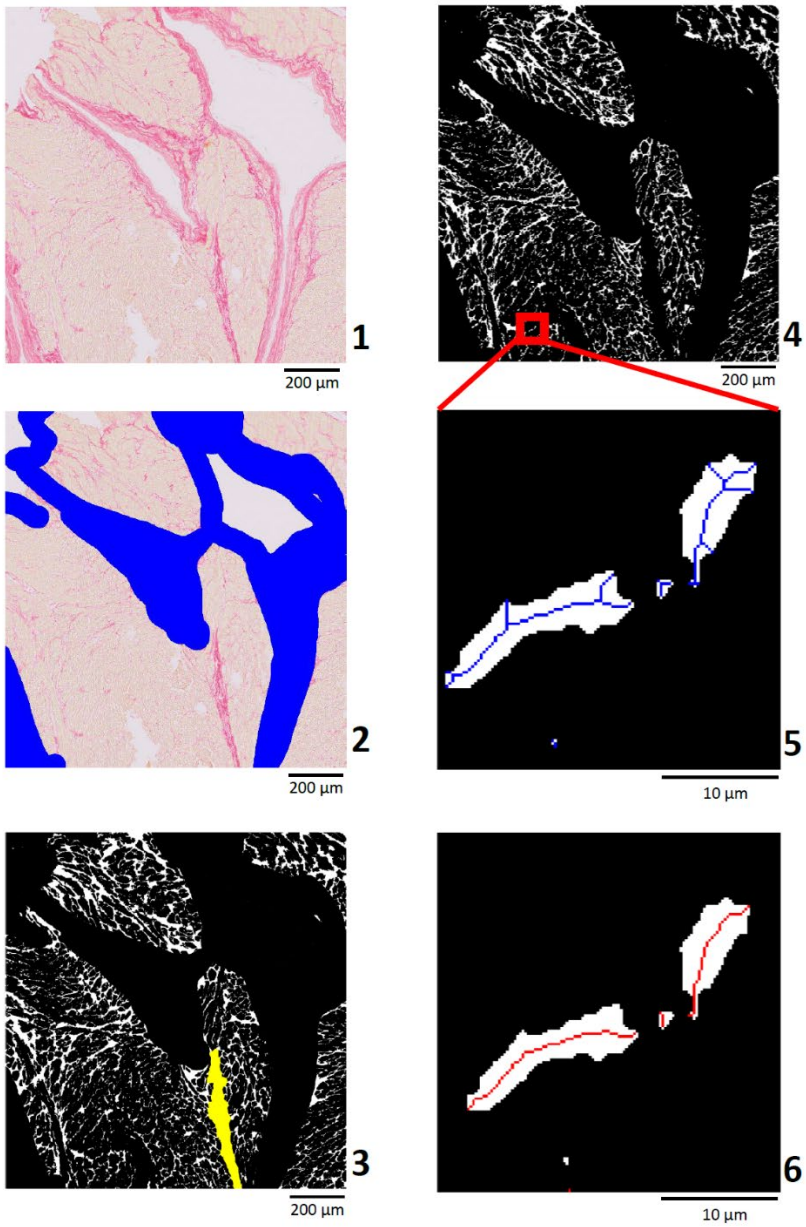
Outcome of 20 times repeated propensity matched analysis, sorted by *P* value.

Repetition No..	*P*	McNemar	Pairs	% AF freedom cases	% AF freedom controls	% AF freedom difference
8	.098	2,743	180	61.11	70.00	8.9
15	.079	3,084	180	61.11	70.56	9.4
12	.048	3,903	180	61.11	71.67	10.6
4	.046	4,000	180	61.11	71.67	10.6
20	.046	4,000	180	61.11	71.67	10.6
5	.036	4,402	180	61.11	72.22	11.1
13	.034	4,512	180	61.11	72.22	11.1
1	.031	4,628	180	61.11	72.22	11.1
14	.031	4,628	180	61.11	72.22	11.1
2	.024	5,063	180	61.11	72.78	11.7
3	.024	5,063	180	61.11	72.78	11.7
11	.024	5,063	180	61.11	72.78	11.7
17	.024	5,063	180	61.11	72.78	11.7
18	.024	5,063	180	61.11	72.78	11.7
10	.021	5,333	180	61.11	72.78	11.7
16	.017	5,653	180	61.11	73.33	12.2
6	.016	5,802	180	61.11	73.33	12.2
7	.013	6,126	180	61.11	73.89	12.8
9	.013	6,126	180	61.11	73.89	12.8
19	.013	6,126	180	61.11	73.89	12.8

AF, atrial fibrillation.

Combined chi-square of McNemar test = 4.519, *P* = .0336.

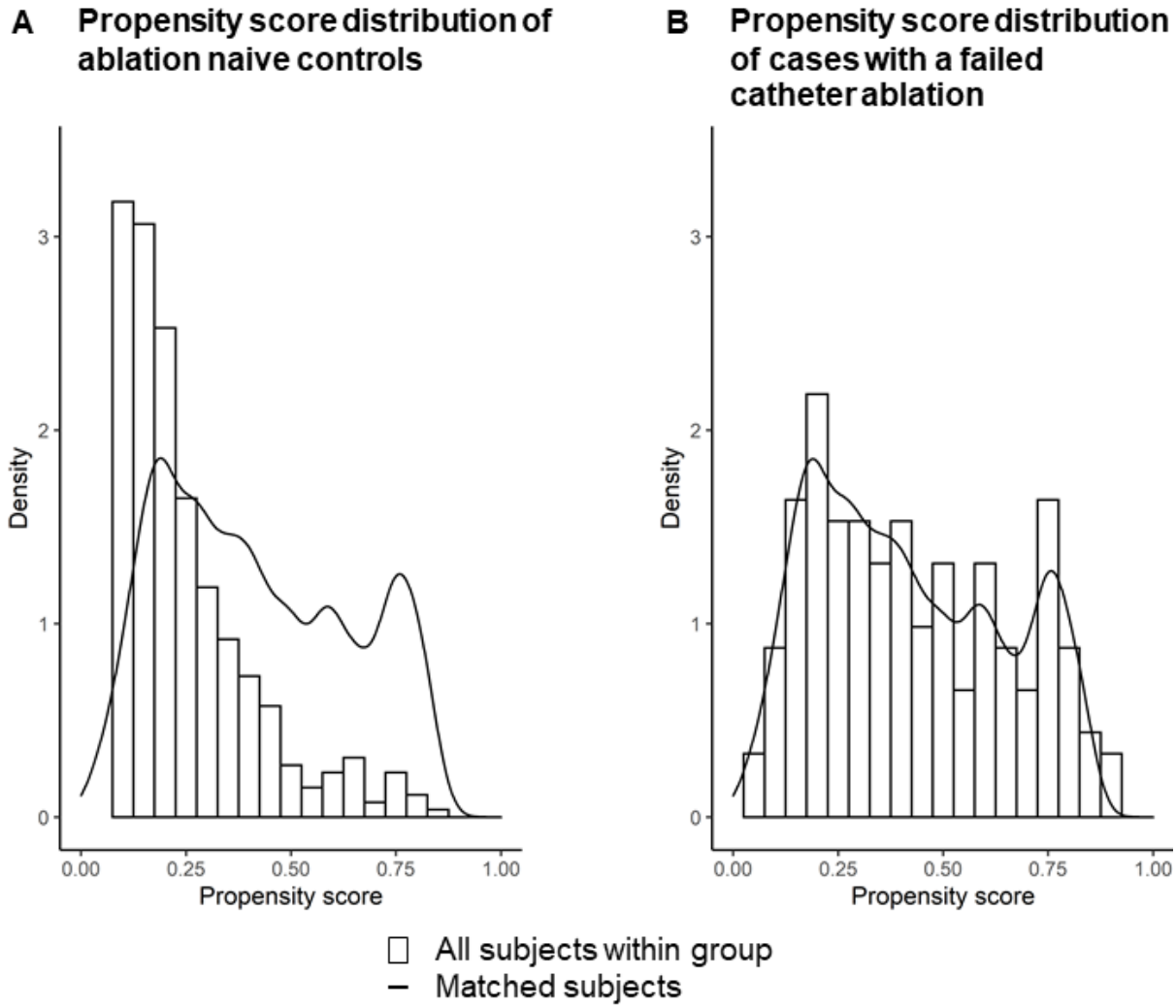
Figure 1 of the supplementary data. Typical example of collagen fiber analysis in 6 screens.



1) Selection of ± 4600 by 4600 pixels. 2) Manual removal of endocardial, epicardial and perivascular fibrosis (blue = excluded area). 3) Binarized (black and white) image, identification and removal of large, interconnected areas of collagen (yellow). 4) Final input for fiber analysis algorithm. 5 and 6 are a magnification of the red aligned section of image 4. 5) Result of skeletonization, 6) fibers with a red centerline, reflecting the length of the fiber.

Figure reproduced; first published in BMJ Open 2022;12:e056829.

Figure 2 of the supplementary data. Density plots of propensity score.



A: density plot of ablation naïve controls. B: density plot of cases with a previously failed catheter ablation. The number of patients in both group was similar. Bars represent all patients within that group before matching, lines represent the group after matching. Of note, group size of matched participants (line, n = 180) in graph A was considerably smaller than group size of all participants in that group (bars, n = 522). In graph B, group sizes were similar (line, n = 180, bars, n = 183).