The effects of different preventive counseling programs on stress level in patients with paroxysmal atrial fibrillation after catheter ablation

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Background: Stressful life events may trigger paroxysmal atrial fibrillation (AF) and chronic stress is known to negatively affect long-term outcomes in cardiovascular diseases.

Purpose: To assess the impact of different preventive counseling programs on stress level in patients (pts) after catheter ablation (CA) performed for paroxysmal AF.

Methods: This is a prospective randomized controlled study with 3 parallel groups of pts with paroxysmal AF after CA (radiofrequency or cryoablation). Pts were randomized into 3 groups in 1:1:1 ratio. During hospitalization for CA pts from all groups received single-session preventive counseling with focus on their individual cardiovascular risk factors profile. After discharge pts from Group 1 received remote preventive counseling by phone and pts from Group 2 by email every two weeks for the first 3 months after enrollment (a total of 6 sessions). Group 3 received usual care. All pts underwent stress assessment using a 10-point visual analogue scale (VAS) at baseline and at 12 months after CA.

Results: A total of 135 pts aged 35 to 80 years were enrolled (mean age 57.3 ± 9.1 years, 51.8% men). The groups were well balanced according to demographic and clinical features. At 1 year of follow-up there was a significant reduction of average stress level in both intervention groups vs. control (Table).

Conclusions: Preventive counseling followed by 3 months of remote support via phone and email reduced the stress level in AF pts after CA.

The stress levels over 12 months

	Group 1 (support via phone)	Group 2 (support via email)	Control group	Differences, Group 1 vs. Control	Differences, Group 2 vs. Control
Baseline (points)				n/s	n/s
Mean ± SD	5.3±2.3	5.1±2.8	5.6±2.5		
Me (25%; 75%)	5 (4; 7)	5 (2.5; 7)	6 (4; 8)		
At 12 months (points)				0.003	<0.001
Mean ± SD	4.5±2.3*	3.2±1.7**	5.6±1.6		
Me (25%; 75%)	5 (3; 5)	3 (2; 4)	6 (5; 6)		
Δ% after 12 months, Me (25%; 75%)	−16.7 (−57.1; 25.0)	−50.0 (−60.0; −5.0)	−10.0 (−25.0; 50.0)	n/s	<0.001

SD = standard deviation. *$p < 0.05$ compared with baseline; **$p < 0.001$ compared with baseline.