

Prevention of Atrial Fibrillation by Complete Compartmentalization of the Left Atrium Using a Catheter Technique

Sabine ERNST, M.D., Feifan OUYANG, M.D., Birke SCHNEIDER, M.D, and Karl-Heinz KUCK, M.D.

From Allgemeines Krankenhaus St. Georg, Hamburg, Germany.

LA Compartmentalization for AF Prevention.

Introduction

Right atrial compartmentalization has been demonstrated to only reduce the number of atrial fibrillation (AF) episodes; left atrial (LA) fibrillation still occurs.

Methods and Results

We report successful LA compartmentalization resulting in isolation of all four pulmonary veins in a 51-year-old woman suffering from paroxysmal AF. Deployment of a complete encircling line resulted in dissociation of electrical activation within the isolated area from the remaining LA. Despite attempts at reinduction by pacing maneuvers inside and outside the isolated area, AF was no longer inducible. During 21-week follow-up, the patient was completely free of symptoms. Antiarrhythmic therapy with sotalol (as before the last ablation) was continued during the initial 12 weeks of follow-up and then discontinued. Sequential Holter recordings showed stable sinus rhythm with rare atrial extrasystoles. Using a continuous 7-day event recorder (R.TEST Evolution, NOVACOR, Rueil-Malmaison, France) stable sinus rhythm was documented without evidence of asymptomatic episodes of AF.

Conclusion

If reproducible, this ablation strategy could allow treatment of AF independent of suppression of any triggering event.

J Cardiovasc Electrophysiol, Vol 11, pp 686-690, June 2000