

**V1698 - Cryoballoon Ablation for Patients with Atrial Fibrillation: Long-term Results of the German Ablation Registry**

*P. Halbfäß<sup>1</sup>, U. Dorwarth<sup>1</sup>, M. Horack<sup>2</sup>, J. Brachmann<sup>3</sup>, K.-H. Kuck<sup>4</sup>, D. Andresen<sup>5</sup>, B. Schumacher<sup>6</sup>, S. Willems<sup>7</sup>, S. G. Spitzer<sup>8</sup>, K. Heinroth<sup>9</sup>, J. Tebbenjohanns<sup>10</sup>, B.-D. Gonska<sup>11</sup>, J. Senges<sup>2</sup>, E. Hoffmann<sup>1</sup>*

<sup>1</sup>Klinik für Kardiologie u. Internistische Intensivmedizin, Städt. Klinikum München GmbH, Herzzentrum München-Bogenhausen, München; <sup>2</sup>an der Universität Heidelberg, Institut für Herzinfarktforschung Ludwigshafen, Ludwigshafen; <sup>3</sup>II. Medizinische Klinik - Kardiologie, Angiologie, Pneumologie, Klinikum Coburg, Coburg; <sup>4</sup>II. Medizinische Abteilung, Fachabt. Kardiologie, Asklepios Klinik St. Georg, Hanseatisches Herzzentrum Hamburg, Hamburg; <sup>5</sup>Klinik für Innere Medizin, Kardiologie u. konserv. Intensivmed., Vivantes Klinikum Am Urban, Berlin; <sup>6</sup>Klinik für Kardiologie, Herz- und Gefäß-Klinik GmbH, Bad Neustadt a. d. Saale; <sup>7</sup>Klinik für Kardiologie mit Schwerpunkt Elektrophysiologie, Universitäres Herzzentrum Hamburg GmbH, Hamburg; <sup>8</sup>Kardiologie, Angiologie, Radiologie, Nuklearmedizin, Praxisklinik Herz und Gefäße, Akademische Lehrpraxisklinik der TU Dresden, Dresden; <sup>9</sup>Klinik und Poliklinik für Innere Medizin III, Universitätsklinikum Halle-Wittenberg, Halle/Saale; <sup>10</sup>Med. Klinik I, Klinikum Hildesheim GmbH, Hildesheim; <sup>11</sup>Med. Klinik, Abt. 3, St. Vincentius-Kliniken, Karlsruhe;

**Introduction:** Since March 2007 the German Ablation Registry prospectively enrolls patients undergoing catheter ablation at 55 participating centers. The registry includes atrial fibrillation ablation procedures with different techniques including cryoballoon ablation. Only few prospective studies have reported long-term results of cryoballoon ablation. The present analysis is the largest prospective evaluation of AF patients undergoing cryoablation so far.

**Methods and Results:** In this multi-center registry 776 AF patients (66% male, mean age 61 yrs) undergoing cryoballoon ablation were included. The indication was paroxysmal AF in 84% of the patients, and persistent AF in 16%. Patient characteristics, acute success, complications and long-term results were evaluated. A transtelephonic follow-up interview was performed one year after the procedure with evaluation of the clinical outcome, of postprocedural complications and of arrhythmia recurrences with ECG documentation. The mean procedure time was 170 minutes (130-210), mean fluoroscopy time 37 min (range 28 min - 51 min) and the mean total time of cryo application 48 min (range 40 min - 60 min) per patient. Acute success was 96.8%. In total, one stroke occurred during hospitalisation in a male patient (0.1%). Eleven patients (1.4%) suffered a relevant postprocedural complication until hospital discharge (2 major bleedings, 7 vascular complications at the access site, 1 relevant pericardial effusion and 1 third degree AV-block). None of these complications was fatal. Sixteen minor bleedings occurred (2.1%). At discharge, 53% of the patients were taking a specific antiarrhythmic medication (class I AA: 32%; class III AA: 21%) and 72% received betablocker therapy. One-year follow-up was available in 41% of the patients with freedom from AF in 166/316 patients (52.4%).

**Conclusion:** In this multicenter prospective registry, at a still preliminary status, cryoballoon pulmonary vein ablation proved to be a feasible and safe procedure with a very low rate of major complications. The freedom from AF rate at 1 year in this cohort of patients with paroxysmal and persistent AF is comparable to results reported for radiofrequency catheter ablation.