A strategy to achieve CRT response in permanent atrial fibrillation without obligatory atrioventricular node ablation.

Cardiac resynchronization therapy (CRT) is an established method in patients with severe heart failure and wide QRS configuration, particularly during sinus rhythm (SR). In CRT patients with permanent atrial fibrillation (AF), there is no general consensus regarding the need for atrioventricular node (AVN) ablation. The aim of this study was to evaluate the benefit of CRT in permanent AF with and without AVN ablation. New York Heart Association classification, QRS duration, and echocardiographic parameters were assessed before and after CRT with a follow-up of 12 ± 3 months. Two hundred thirty patients in SR and 46 patients with permanent AF of 2.1 ± 0.5 years duration were studied. AVN ablation was performed only in AF patients with insufficient pharmacological rate control evidenced by <= 80% ventricular stimulation. Fifteen AF patients underwent AVN ablation. Biventricular pacing comparably improved functional status, left ventricular ejection fraction, and left ventricular end-diastolic dimensions in all treated groups. Biventricular stimulation percentage was 10% lower in pharmacologically treated AF patients over 1 year as compared to patients in SR and to AF patients undergoing AVN ablation, which did not affect outcome in this patient population. In patients with permanent AF and CRT, an AVN ablation strategy might not be strictly required in all patients.