Is There a Role for Repeated Cardioversion in Patients with Recurrent Atrial Fibrillation?

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Tse and Lau: Is There a Role for Repeated Cardioversion in Patients with Recurrent Atrial Fibrillation? Recent clinical and experimental studies have demonstrated that atrial fibrillation (AF) alters the electrical and mechanical remodeling of the atrium which subsequently promote the maintenance and recurrence of AF. If atrial remodeling can be prevented with prompt and repeated cardioversion, the likelihood of AF recurrence may be reduced. Recent clinical studies have demonstrated that the strategies of transesophageal echocardiography facilitated early cardioversion and early repeated cardioversion may be clinically valuable in some patients who have persistent AF and recurrence of arrhythmia after the initial cardioversion. Furthermore, the use an implantable atrial defibrillator (IAD) for early repeated device-based cardioversion to maintain sinus rhythm appears to be safe and clinically feasible. Early cardioversion by IAD reduces AF burden, reverses atrial remodeling and prevents subsequent AF recurrence in selected patients without structural heart disease implanted with this device, indicating possible "sinus rhythm begets sinus rhythm". Despite this encouraging initial observation, further long-term clinical studies in a larger patient population are needed to confirm this finding. Furthermore, whether the use of IAD in the fully automatic mode to provide immediate termination of AF episodes could intensify the potential beneficial effect and the clinical efficacy of this approach in patients with structural heart disease remains to be evaluated. (J HK Coll Cardiol 2003;11:90-96)

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