

# **Focal atrial tachycardia: new insight from noncontact mapping and catheter ablation.**

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摘要

## **Abstract**

Background-This study investigated the electrophysiologic characteristics, atrial activation pattern, and effects of radiofrequency (RF) catheter ablation guided by noncontact mapping system in patients with focal atrial tachycardia (AT). Methods and Results-In 13 patients with 14 focal ATs, noncontact mapping system was used to map and guide ablation of AT. AT origins were in the crista terminalis (n=8), right atrial (RA) free wall (n=3), Koch triangle (n=1), anterior portion of RA-inferior vena cava junction (n= 1), and superior portion of tricuspid annulus (n=1); breakout sites were in the crista terminalis (n=5), RA free wall (n=5), middle cavotricuspid isthmus (n=2), and RA-superior vena cava junction (n=2). ATs arose from the focal origins (11 ATs inside or at the border of low-voltage zone), with preferential conduction, breakout, and spread to the whole atrium. After applications of RF energy on the earliest activation site or the proximal portion of preferential conduction from AT origin, 13 ATs were eliminated without complication. During the follow-up period (8±5 months), 11 (91.7%) of the 12 patients with successful ablation were free of focal ATs. Conclusions-Focal AT originates from a small area and spreads out to the whole atrium through a preferential conduction. Application of RF energy guided by noncontact mapping system was effective and safe in eliminating focal AT..