



Letter to the Editor

Is it truly atrial tachycardia?

Yoshiaki Kaneko, MD, PhD^{a,*}, Fumio Suzuki, MD, PhD^b^a Department of Medicine and Biological Science, Gunma University Graduate School of Medicine, Maebashi, Japan^b Department of Cardiology, Fukujuji Hospital, Tokyo, Japan

ARTICLE INFO

Article history:

Received 20 January 2016

Received in revised form

20 February 2016

Accepted 23 March 2016

Available online 13 April 2016

Keywords:

Atrioventricular nodal reentrant tachycardia

Atrial tachycardia

Electrophysiology

Ablation

We read the article by Okumura et al. [1] with great interest. The authors reported an ablation strategy applying manifest entrainment to treat adenosine triphosphate (ATP)-sensitive atrial tachycardia (AT) originating from the perinodal region. However, we have some concerns regarding the electrophysiological diagnosis of the tachycardia. The exclusion of atrioventricular nodal reentrant tachycardia (AVNRT) is essentially a prerequisite to diagnose AT. The authors excluded AVNRT based on the findings of atrioventricular dissociation during the ventricular pacing of tachycardia and a V–A–A–V activation sequence on ventricular induction of tachycardia. We do not believe that these findings exclude the diagnosis of AVNRT. Recently, we reported a novel form of fast–slow (F/S) AVNRT incorporating a “superior” slow pathway located at the top of the Koch’s triangle (sup-F/S-AVNRT) [2] with electrophysiological characteristics that included a long RP interval, the earliest site of atrial activation near the His-bundle, ATP sensitivity, and the successful ablation site in the perinodal region, which were strikingly similar to those of the tachycardia in Okumura’s study. Importantly, in some cases of sup-F/S-AVNRT, the finding was caused by ventriculoatrial block in the lower common pathway below the atrioventricular nodal reentry circuit and was satisfied because of double atrial responses using fast and superior slow pathways. Therefore, we wonder if the

tachycardia in Okumura’s study included sup-F/S-AVNRT. Furthermore, manifest entrainment was not specific to AT and was previously documented during atrial entrainment of AVNRT [3].

Conflict of interest

The authors have no conflict of interest to disclose.

References

- [1] Okumura K, Sasaki S, Kimura M. Usefulness of combined CARTO electro-anatomical mapping and manifest entrainment in ablating adenosine triphosphate-sensitive atrial tachycardia originating from the atrioventricular node vicinity. *J Arrhythm* 2016;32:133–40. <http://dx.doi.org/10.1016/j.joa.2015.11.004>.
- [2] Kaneko Y, Naito S, Okishige K, et al. Atypical fast–slow atrioventricular nodal tachycardia incorporating a “superior” slow pathway: a distinct supraventricular tachyarrhythmia. *Circulation* 2016;133:114–23.
- [3] Satoh M, Miyajima S, Koyama S, et al. Orthodromic capture of the atrial electrogram during transient entrainment of atrioventricular nodal reentrant tachycardia. *Circulation* 1993;88(5 Pt 1):2329–36.

* Correspondence to: Department of Medicine and Biological Science, Gunma University Graduate School of Medicine, 3-39-22 Showa-machi, Maebashi, Gunma 371-8511, Japan. Tel.: +81 27 220 8145; fax: +81 27 220 8158.

E-mail address: kanekoy@gunma-u.ac.jp (Y. Kaneko).