



ACC.15

TCT@ACC-12 | innovation in intervention

A430  
JACC March 17, 2015  
Volume 65, Issue 10S

## Arrhythmias and Clinical EP

**FEVER INDUCED BRUGADA SYNDROME IS MORE COMMON THAN PREVIOUSLY SUSPECTED: A CROSSSECTIONAL STUDY FROM AN ENDEMIC AREA**

Poster Contributions

Poster Hall B1

Sunday, March 15, 2015, 3:45 p.m.-4:30 p.m.

Session Title: Novel Findings in the World of Electrophysiology

Abstract Category: 7. Arrhythmias and Clinical EP: Other

Presentation Number: 1220-255

Authors: *Pattara Rattanawong, Wasawat Vutthikraivit, Attawit Charoensri, Awapa Prombandankul, Napatt Kanjanahattakij, Tanawat Jongraksak, Treechada Wisaratapong, Tachapong Ngarmukos, Faculty of Medicine, Ramathibodi Hospital, Mahidol University, Bangkok, Thailand*

**Background:** Brugada syndrome (BrS) is defined as presenting of type-1 Brugada pattern (BrP). BrS can also be induced by fever. We reported a high prevalence of fever induced BrS from the emergency department of Buriram hospital, Thailand. This study demonstrated the highest prevalence of fever induced BrS ever reported.

**Methods:** During May 2014, febrile (oral temperature  $\geq 38^{\circ}\text{C}$ ) and non-febrile patients underwent standard and high leads (V1 and V2 at 2nd intercostal space) electrocardiogram. Risk factor and cardiac symptoms were recorded. Patients with a persistent of type-1 BrP after fever had subsided were excluded. The prevalence of BrS, type-2 BrP and early repolarization pattern (ERP) were demonstrated.

**Results:** 401 patients, 152 febrile and 249 non-febrile, were evaluated. There was no difference in age ( $p>0.05$ ) and gender ( $p>0.05$ ) between groups. BrS was identified in 6 febrile patients (5 males and 1 female) and 2 males in non-febrile patients. The study demonstrated higher prevalence of BrS in febrile group compared to non-febrile group (4.0% VS 0.8%, respectively,  $p=0.037$ ). Among fever induced BrS patients, 3 patients (50.0%) experienced cardiac symptoms before and at the time of presentation and 2 patients (33.3%) had history of first-degree relative sudden death. No ventricular arrhythmia was observed. All of type-1 BrP had disappeared after fever subsided. We found no difference in prevalence of type-2 BrP in febrile and non-febrile group (2.0% VS 2.8%, respectively,  $p>0.05$ ) as well as ERP (3.3% VS 6.4%, respectively,  $p>0.05$ ). However, ERP was found more frequent in males than females in non-febrile group (10.9% VS 1.0%, respectively,  $p=0.0036$ ).

**Conclusion:** Our study demonstrated a highest prevalence of fever induced BrS ever reported. High leads electrocardiogram increased the sensitivity of fever induced BrS diagnosis. Larger study of prevalence, risk stratification and management of fever induced BrS should be done, especially in an endemic area.