Epidemiology of Brugada Electrocardiogram Pattern in Mainland China

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Aim: It was to investigate the epidemiology of Brugada electrocardiogram (ECG) pattern in mainland China. Methods: The literatures of Brugada ECG pattern downloaded from China National Knowledge Infrastructure (CNKI), Wanfang, Weipu, and Pubmed data bank. The morbidity of Brugada ECG pattern was analyzed in Tianjin, Nanjing, Zhejiang, Guanzhou, Xinjiang and Kunming. Results: A total of 223,580 healthy persons were investigated in these 6 regions. Mean age was 38.67 ±0.58 years old. Altogether, 502 (0.22%) persons with Brugada ECG pattern were disclosed by 12 lead surface ECG, including type one Brugada ECG (n=49), type two Brugada ECG (n=221), type three Brugada ECG (n=232), respectively. Of them, 445 (88.65%) cases were male, 57 (11.35%) cases were female. Forty-three (0.019%) cases with sudden death or syncope and type one Brugada ECG pattern were diagnosed as Brugada syndrome. The highest and lowest incidence of Brugada ECG pattern was 0.82% and 0.3% in Kunming and Zhejiang, respectively. With a follow up of 48 months, 13 patients with Brugada syndrome suffered from syncope or ventricular tachycardia/ventricular fibrillation, but no case died. Conclusion: The morbidity of Brugada ECG pattern and syndrome was 0.22%, 0.019% in mainland China, respectively with a male predominance.

Keywords: Brugada electrocardiogram pattern, Brugada syndrome