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Epinephrine induced ventricular tachycardia in a patient with congenital long QT syndrome - A case report -

Department of Internal Medicine, Kyungpook National University Hospital, Daegu, Korea

*Yong Seop Kwon, Yongkeun Cho, Myung Hwan Bae, Jang Hoon Lee,
Hyeon Min Ryu, Hun Sik Park, Shung Chull Chae, Jae-Eun Jun, Wee-Hyun Park

The long QT syndrome (LQTS) consists of defects in cardiac ion channels that are responsible for cardiac repolarization. Sympathetic stimulation, exercise tests and administration of exogenous catecholamines are known to induce QT prolongation and torsade de pointes. A 24-year-old woman visited the department of plastic surgery in our hospital for management of a nevus on her face. On preoperative evaluations, her electrocardiogram (ECG) revealed a marked prolongation of the QT interval up to 528ms and she was referred to the department of cardiology for the evaluations. She had a history of three times of syncopal attacks since she was 12 years old, two times after exercise and one time after emotionally stressful event. There were no family history of syncopal attacks. Physical examination revealed no abnormalities. Serum electrolyte concentrations were within normal limits and the chest X-ray and the echocardiography showed no abnormal findings. During exercise stress test, maximal prolongation of QTc was observed at the recovery phase. We tested the effects of intravenous administration of epinephrine (0.1μg/kg). Immediately after the bolus epinephrine injection, the ECG showed marked prolongation of QT interval and polymorphic ventricular tachycardia. Direct-current electrical cardioversion was done and we can restore sinus rhythm immediately and safely. We made a diagnosis of LQTS, probably type 1.We planned a gene study but the patient didn't want to get the examination. She was discharged taking a beta blocker.

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A case of mycotic aneurysm of the aortic arch

원광 대학교 병원 순환기 내과

*박은미, 노동효, 윤경호, 김남호, 오석규, 정진원

A 80-year-old woman presented with hemoptysis for 2 days (1/2 to 1 cup of bright blood) and fever. She had been well until a week earlier, when she began to note increasing malaise, intermittent fever and hemoptysis. On admission, the patient looked unwell, with a temperature of 37.8℃. Physical examination at admission revealed a blood pressure of 110/70 mmHg, heart rate of 70 per minute, and respiratory rate of 20 per minute. The patient was hemodynamically stable and Her physical examination was unremarkable. Blood analysis showed a white cell count of 11,080/ul, erythrocyte sedimentation rate 81mm/hr and C-reactive protein level of 120.10 mg/dl . The chest x-ray showed multiple nodule in right upper lobe and air space consolidationd and ground glass opacity around aortic arch in left upper lobe. The enhanced computed tomography scan of the thorax performed. It showed focal enhancing saccular aneurysm at aortic arch level with air space consolidation in the left upper lobe. A mycotic aortic aneurysm was strongly suspected. The echocardiography was also performed, and no vegetations were observed. The patient was treated empirically with intravenous ceftriaxone. Her blood cultures grew Staphylococcus aureus sensitive to ceftriaxone, and vancomycin. Her fever subsided after add vancomycin to ceftriaxone. One week later, Her symptoms subsequently disappeared. Her hematological and biochemical investigations returned to normal limits Computed tomography after 3 weeks antibiotics therapy showed increased size of aneurysm sac, however, decreased extent of air space consolidation in the peripheral portion of aneurysm area. The patient had an uneventful course and remains well on two-month follow-up.