Diltiazem

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ST-segment elevation and ventricular fibrillation in a patient with Brugada syndrome: case report

A 39-year-old man with Brugada syndrome and vasospastic angina developed Brugada-type ST-segment elevation and ventricular fibrillation while receiving diltiazem.

The man was hospitalised after cardiac arrest and diagnosed with Brugada syndrome and vasospastic angina. An implantable cardioverter-defibrillator (ICD) was inserted to treat Brugada syndrome and he started receiving diltiazem 100 mg/day [*route not stated*] for vasospastic angina. Two weeks after discharge, he had seven ICD shocks while sleeping, all involving ventricular fibrillation. A follow-up ECG using high chest leads showed type 1 coved-type ST-segment elevation.

Diltiazem was discontinued. Nitrate was started. The man had no further ventricular fibrillation attacks and the type 1 coved-type ST-segment elevation disappeared.

Author comment: "*[Calcium channel] blockers . . . can aggravate Brugada-type ECG abnormalities and induce [ventricular fibrillation] attacks.*"

Yoshikawa T, et al. A case of Brugada syndrome coexisting with vasospastic angina: Caution should be taken when using calcium channel blockers. Journal of Cardiology Cases 4: e143-e147, No. 3, Dec 2011. Available from: URL: http://dx.doi.org/10.1016/j.jccase.2011.09.001 - Japan 803068720