Images in Cardiology

This section edited by Edward A. Geiser, M.D.

Fatal Torsade de Pointes with d,l-Sotalol and Low Potassium

ETIENNE DELACRÉTAZ, M.D., AND JÜRGEN FUHRER, M.D.

Cardiology, University Hospital, Bern, Switzerland

FIG. 1 Single-channel electrocardiogram (ECG) from a 24-h Holter recording showing periods of ventricular bigeminy preceding an episode of torsade de pointes degenerating into ventricular fibrillation.

Address for reprints:

Etienne Delacréta, M.D.
Arrhythmia Service, Cardiology
Brigham and Women's Hospital
75 Francis Street
Boston, MA 02115, USA

Received: August 26, 1998

Accepted: September 24, 1998

A 73-year-old woman was hospitalized with left lower abdominal pain and low-grade fever. A stenosing sigmoidal diverticulitis was diagnosed and the patient was scheduled for sigmoidectomy. She had a history of hypertension treated with amiloride 5 mg and hydrochlorothiazide 50 mg daily, as well as symptomatic complex ventricular ectopy treated with d,l-sotalol 160 mg daily. On admission, plasma potassium level was low at 3.3 mmol/l, secondary to chronic therapy with anthraquinones and hydrochlorothiazide. Plasma creatinin was within normal range. The patient died suddenly during a 24-h Holter recording performed prior to surgery. The recording

FIG. 2 Two-channel ECG from a 24-h Holter recording showing the typical onset of the torsade de pointes after a short-long-short ventricular cycle length sequence (RR: 1240, 640, and 680 ms, respectively). Repolarization of the preceding sinus beats is markedly prolonged with merging T and U waves and a QU interval of 660 ms at a rate of 57 beats/min.

shows an episode of torsade de pointes degenerating into ventricular fibrillation (Fig. 1). Prior to the onset of the torsade de pointes the repolarization is markedly prolonged with merging T and U waves and a QU interval of 660 ms at a rate of 57 beats/min (Fig. 2).

Reference

Lehmann MH, Hardy S, Archibald D, Quart B, MacNeil DJ: Sex difference in risk of torsade de pointes with d,l-sotalol. *Circulation* 1996;94(10):535-541