

ECG of the Month



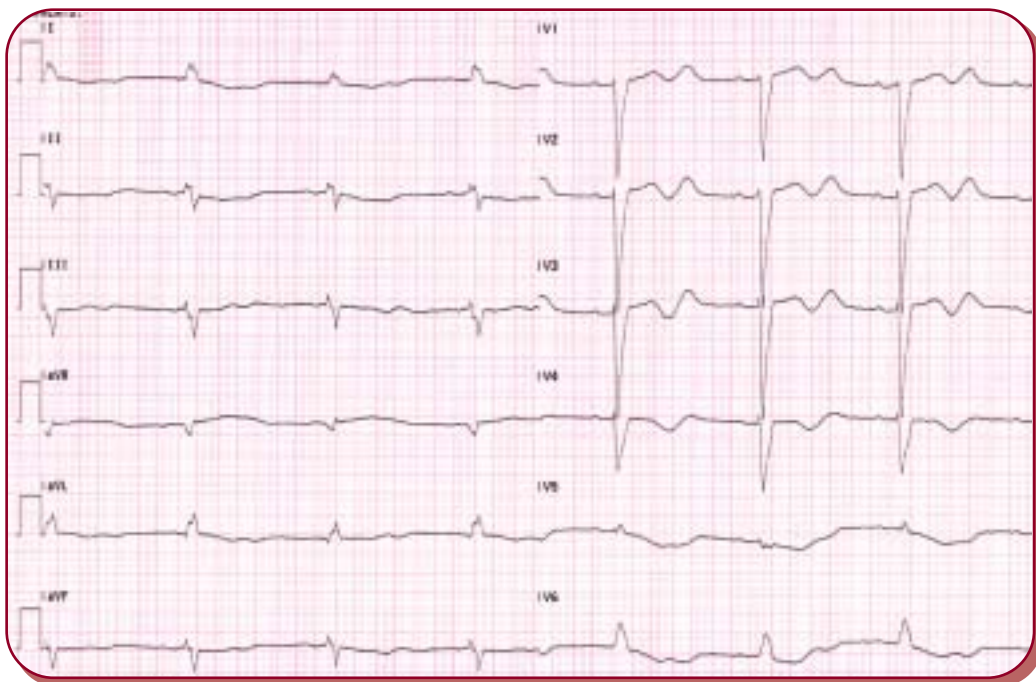
By Martin S. Green, MD, FRCPC

University of
Ottawa Heart Institute

See “U” Later

This ECG was taken in a 63-year-old woman with a history of syncope.

What is the diagnosis?





University of
Ottawa Heart Institute

ECG

of the Month

This Month's ECG Diagnosis


This ECG shows sinus bradycardia at a rate of about 40 beats per minute. The QRS is wide, at about 200 msec. The repolarization is particularly bizarre, with a very long QT-U complex. In the precordial leads, the U wave is taller than the T wave. The entire repolarization complex is markedly prolonged.

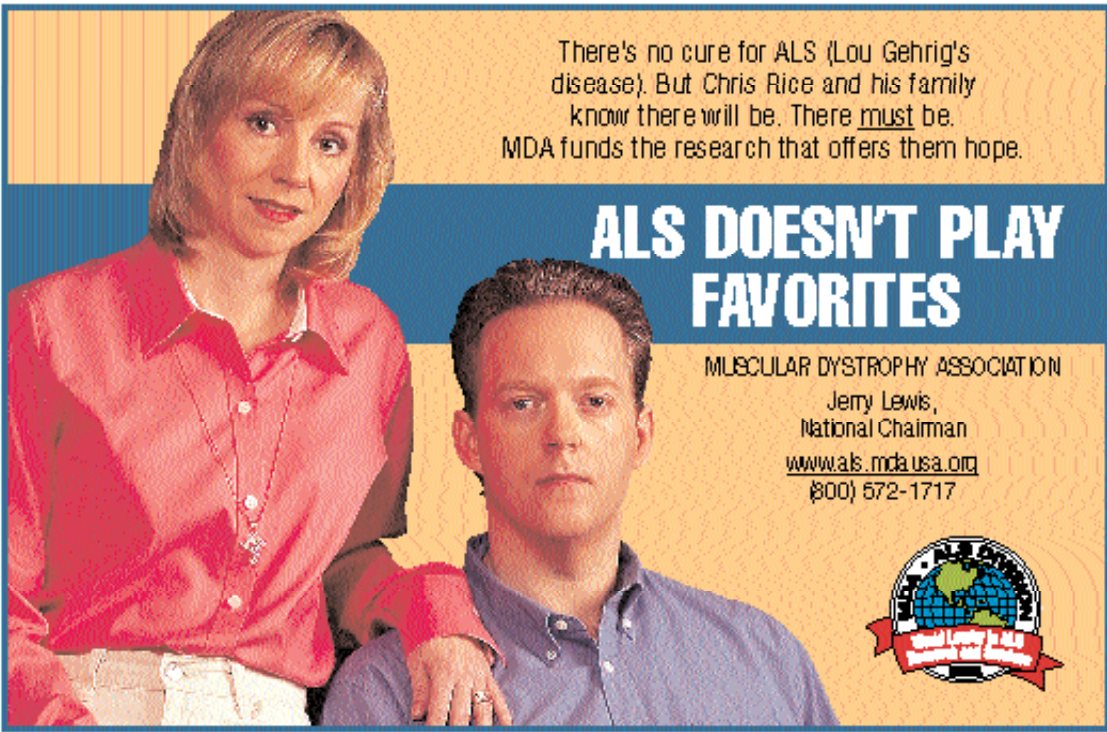
This ECG is typical of a metabolic/toxic abnormality, as supported by the wide QRS. The markedly prolonged QT interval and giant U waves indicate the abnormal repolarization. In this particular case, the U waves being taller than the T waves suggest the possibility of hypokalemia.

In this particular case, the U waves being taller than the T waves suggest the possibility of hypokalemia.

In fact, this patient had a potassium of 3.0 mmol/L.

This particular patient's metabolic/toxic syndrome was caused by medications. She had been taking amiodarone, along with two different antidepressants. The combination of bradycardia and prolonged QT, as well as hypokalemia, contributed to her syncope episodes, which were documented as being due to Torsades de pointes-type ventricular tachycardia.

Ultimately, after discontinuing her medications and replacing potassium, repolarization normalized and the Torsades was no longer seen. 



There's no cure for ALS (Lou Gehrig's disease). But Chris Rice and his family know there will be. There must be. MDA funds the research that offers them hope.

ALS DOESN'T PLAY FAVORITES

MUSCULAR DYSTROPHY ASSOCIATION
Jerry Lewis,
National Chairman
www.als.mda.usa.org
(800) 572-1717

