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“Thrombolysis” by a neuromuscular blocking agent

A 72-year-old man was brought to our intensive care unit for a community-acquired pneumonia complicated by septic shock with multiple organ failure. Mechanical ventilation was initiated upon admission. Three days later, the patient developed striking ST segment elevation on electrocardiogram raising concern of an ongoing cardiac event (Fig. 1). However, no hemodynamic repercussion was present. Serum electrolytes were normal.

A further electrocardiogram provided evidence of a noncardiac electrical activity with a baseline undulation of the electrocardiogram asynchronous with

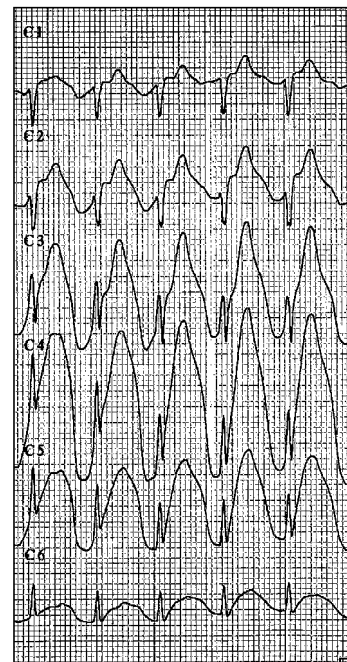


Fig. 1

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the regular superimposed QRS complex (Fig. 2). The electrocardiogram normalized after administration of a neuromuscular blocking agent for the ventilatory management of the acute respiratory distress syndrome (Fig. 3). The echocardiogram performed subsequently showed diaphragmatic myoclonus at a frequency similar to the heart rate [1–3]. On the first electrocardiogram performed, the superimposed electromyographic activity of the diaphragmatic flutter was incidentally in phase with the QRS complex and had therefore been misinterpreted as cardiac electrical activity.

Fig. 2

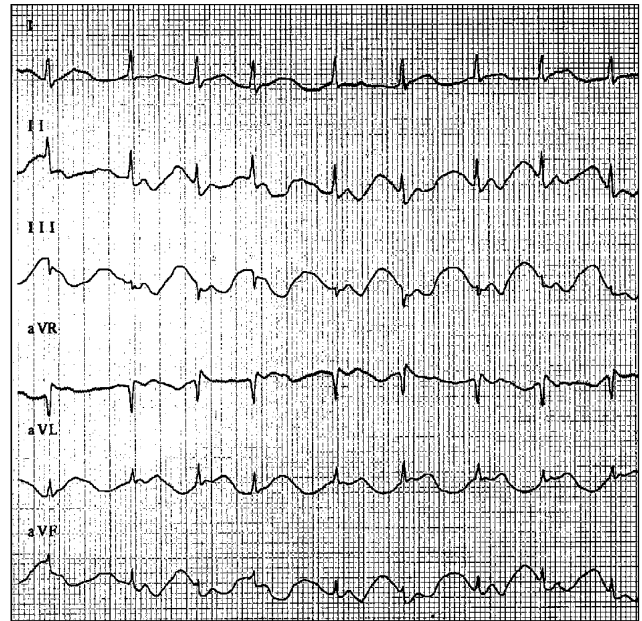
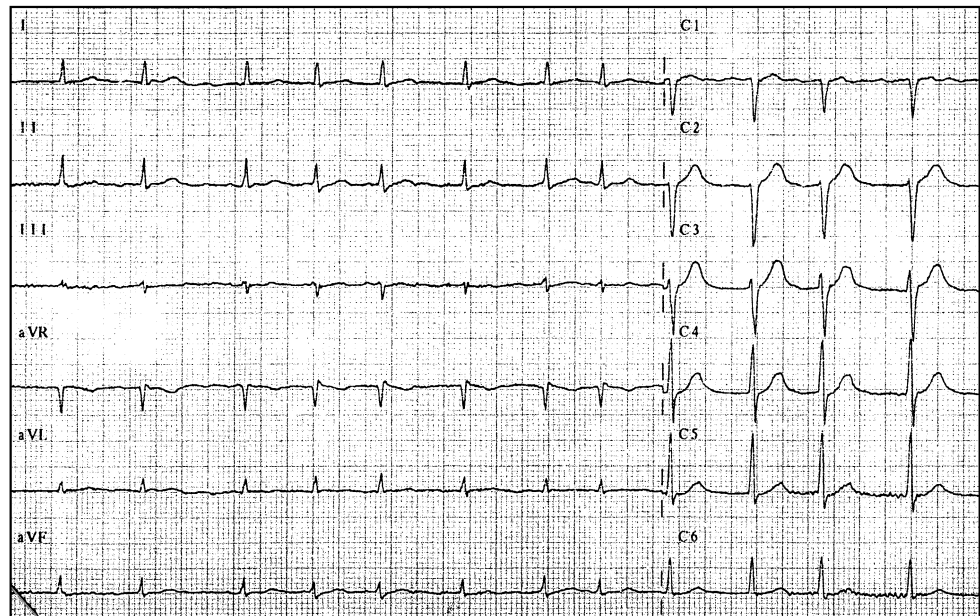


Fig. 3



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