A 19-year-old previously healthy male was admitted with acute chest pain and electrocardiographic ST-elevation (Panel A). He reported headaches and dry coughs but no fever during the last week before admission. No other relevant medical history or drug intake was reported. Coronary angiography demonstrated open arteries. Left ventriculography showed slight hypokinesia of the anterior wall and apex. A short, non-sustained ventricular tachycardia was recorded the first day (Panel B). Troponin T was 1438 ng/L (normal <10 ng/L) and C-reactive protein was 6.7 mg/L (normal <10 mg/L). A magnetic resonance imaging (MRI) study was performed and analysed according to current criteria for myocarditis. Panels D–F show short-axis views. The images demonstrate oedema on the T2-weighted sequence (Panel D, arrow), increased global relative enhancement on the T1-weighted gradient inversion recovery sequence (Panel E, arrow) and epicardial late gadolinium enhancement (Panel F, arrow). The left ventricular ejection fraction was 43%, measured by MRI. These findings are consistent with acute myocarditis. A nasopharyngeal smear was positive for influenza A virus (PCR assay). The patient received oseltamir 75 mg b.i.d. and was discharged free of symptoms after 7 days. The electrocardiographic ST-elevation resolved (Panel C) and an echo-Doppler study demonstrated normal contractility. As the patient was haemodynamically stable and recovered rapidly, an endomyocardial biopsy was not performed. The final diagnosis was influenza A virus infection complicated with acute myocarditis. Further characterization of the virus was not undertaken, but in accordance with the current epidemiological situation an H1N1 infection was strongly assumed.