



## Consider cardiac and non-cardiac predictors of sudden death in myotonic dystrophy type 1

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Editorial

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## Consider cardiac and non-cardiac predictors of sudden death in myotonic dystrophy type 1

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In an article from the New England Journal of Medicine Groh et al. [1], found severe electrocardiographic abnormalities (sECGA) to predict sudden death (SD) among 406 patients with myotonic dystrophy 1 (MD1). However, it remains unclear if data were retrospectively or prospectively collected, why QT-prolongation, ventricular ectopic beats, or runs were not assessed as sECGA, how heart failure was defined, why only a quarter of the patients underwent imaging-studies, and why cardiac imaging-studies were assessed as events [2,3].

Was the “clinical diagnosis of tachyarrhythmia” only based on history or ECG-documentation? Which was the current medication of the included patients since it may affect their prognosis? How many patients experienced stroke or seizures or died from these diseases, which also cause SD? How to explain that the number of CTG repeats was associated with sECGA but not with mortality?

Stating that mortality from respiratory failure may limit the benefit of cardioverter defibrillators is not based on the results since no patient with cardioverter defibrillator died from respiratory failure. To finally determine predictors of SD in MD1 more comprehensive cardiologic and non-cardiologic examinations are warranted. Loop-recording may be useful to detect malignant arrhythmias and to indicate implantation of a cardioverter-defibrillator [4].

### References

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- 2 Umeda Y, Ikeda U, Yamamoto J, et al. 1999. Myotonic dystrophy associated with QT prolongation and torsade de pointes. Clin



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3 Finsterer J, Stöllberger C. 2008. Primary myopathies and the heart. Scand Cardiovasc J. 42: 9-24. Ref.: <https://bit.ly/2W9ckQM>

4 Finsterer J, Stöllberger C, Avanzini M, et al. 2008. Asymptomatic, nonsustained ventricular tachycardia in myotonic dystrophy type 1 detected with a loop recorder. Eur Neurol. 60: 109-111. Ref.: <https://bit.ly/2R8dmJ4>