Reviewer's report

Title: Prevalence and Correlates of Apathy in Myotonic Dystrophy Type 1

Version: 2 Date: 30 January 2015

Reviewer: John Vissing

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This paper describes the investigation of apathy in patients with DM1: a condition which from a clinical standpoint is very well known and also has been studied before. So, from that perspective the findings are not highly novel, but they add important information to the description of this part of the phenotype in DM1. For the same reason, the priority claim at the top of page 11 that “this is the first study to demonstrate that apathy is highly prevalent in DM1” should be deleted.

The study was nicely controlled by having a disease control group in the form of FSHD. Unfortunately, these patients were 10 years older. How do the authors think this could affect the results? Where DM1 and FSHD patients disabled to the same extent?

In the table, it is inappropriate to present the CTG repeats by decimal numbers. The error in determination is large and even distinguishing between 560 or 570 is debatable.

The discussion section is much too lengthy, and could easily be cut to half.

What is the chance of mass significance for some measures in the multiple statistical analyses carried out in tables 2 and 3?

It appears that no ethics committee approved the study. I am not sure this is appropriate.

I am not familiar with the many cognitive tests used. It would be desirable to have a neuropsychologist.