**Appendix.**

**Description of measures used during the prospective study.**

**Muscular Impairment Rating Scale (MIRS)**
An assessment and classification with the Muscular Impairment Rating Scale (MIRS) was performed [1]. The MIRS is a DM1-specific ordinal scale with five grades, with the definitions of the grades as follows: 1 - no muscular impairment; 2 - minimal signs, as ptosis and nasality, no distal weakness except digit flexor weakness; 3 - distal weakness, no proximal weakness except in elbow extensors; 4 - mild to moderate proximal weakness; and 5 - severe proximal weakness. For a more detailed definition, see the original paper [1].

**Quantitative Muscle testing (QMT)**

The quantitative muscle force was assessed with a handheld gauge meter (Mecmesin Basic Force Gauge 1000N, Chauvin Arnaux Group). The maximum amount of resistance in an isometric muscle effort was measured using the break method and the results were recorded in newtons (N). For further information on the muscle testing, see Hammarén, 2015 [7]. Reference values for the break method were obtained from Phillips et al, 2000 and Bäckman et al, 1995 [2, 3] and reliability assessments from Bohannon, 1986 and Merlini et al, 2002 [4, 5].

**Timed 10-m walk in maximum speed (T10max)**

Timed 10-m walk: Walking in a maximum speed was measured over 10 meters with a still-standing start and a “flying” finish to a target 2-3 meters beyond the mark at 10 m [6-9]. The patients were instructed to walk barefoot or in socks, to minimize the risk of bias due to footwear difference from time to time. Handheld walking aids were allowed, when needed. All patients were well acquainted with the test. The test has shown high relative test-retest reliability in persons with DM1 (ICC 0.94), and small absolute variation (SEM 0.4 sec, Repeatability 1.0 sec) [10].

**Timed Up & Go (TUG)**

Timed Up & Go: The patient rises with arm support from a seated position in an armchair of normal height (44-45cm), walks at a comfortable and safe pace to a mark on the floor 3 meters away, turns, walks back to the chair, turns and sits down [11]. Handheld walking aids are allowed, if needed. The test is performed twice, the second trial is recorded. The test has shown high relative test-retest reliability in persons with DM1 (ICC 0.83), and small absolute variation (SEM 0.7 sec, Repeatability 1.9 sec) [10].

**Step test (STEP)**

A step test was performed according to Hill et al [12]: The patient stands unsupported with parallel feet 5cm in front of an 8cm high block (40x40cm) and performs as many steps as possible during 15 seconds, after a few practise steps. One step comprises placing one foot fully up onto and then down off the block. Both legs were tested, one foot at a time. If balance is lost during the trial, the trial stops and only the completed steps are recorded. The test has shown high relative test-retest reliability in persons with DM1 (ICC 0.94/0.83), and small absolute variation (SEM 1.5/1.3 steps, Repeatability 4.1/3.7 steps) [10].

**Reported Walking Index (RWI)**

A self-reported patient questionnaire, Reported Walking Index [13], assesses the subjective walking ability. RWI consists of five items concerning walking balance, walking difficulty indoors/outdoors and the use of walking aids. Two items have possible scores from one to three, the other three are dichotomous (yes/no). When use of walking aids is confirmed, the patient is also asked to report what type of aids he/she uses, e.g. ankle-foot orthoses and walking sticks. The maximum total score is 12, showing no subjective walking difficulties, the minimum score is 5 showing very large walking difficulties. The RWI has shown concurrent validity with a number of clinical tests of balance and walking. It has also proved to be a statistically significant predictor of falls and fractures [14].

**Fall definition**

The World Health Organization fall definition was used when asking about falls: “an event, which results in a person coming to rest inadvertently on the ground or floor or other lower level” [15]. The person was asked how many unintentional falls he/she had experienced during the previous year; how the falls had happened; if they had resulted in injuries; and if any medical care was needed. If the number of falls were too many to actually remember, the person was provided some memory cues to assist in estimating number of falls based on incidents during the last weeks and months. A recurrent faller was defined as a person who had experienced three unintentional falls or more under the preceding year, a frequent faller was defined as a person falling more than five times [16].

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