

Supplementary Material 1. Hand-Held Dynamometer (HHD) assessment

A hand-held dynamometer (Sharif-Exo Model M-201) with an error of ±100 g was used to evaluate muscle strength in this study. Target muscles in the upper extremities are right and left deltoids, right and left biceps brachii, right and left wrist extensors, while target muscles in the lower extremities are right and left iliopsoas and rectus femoris, right and left quadriceps femoris, right and left tibialis anterior. To measure deltoid muscle strength, the assessor placed the HHD in the distal part of the arm and asked the patient to move their upper limb away from themselves while lying in the supine position. To measure biceps brachii muscle strength, the assessor held the patient arm with one hand firmly, placed the HHD in the distal part of the patient's elbow with the other hand and asked the patient to bend the elbow, while lying in a supine position. The patient was in the supine position when wrist extensor muscle strength was measured. The patient's elbow was placed at 90° while their palm was towards their face. The patient was asked to bend their wrist backward. For measuring iliopsoas and rectus femoris muscle strength, patient's hip was bent about 90° while lying in a supine position. The assessor held the patient's hip steadily with one hand while placing the HHD in the distal part of the hip with the other hand and then asked the patient to bend the hip inward. For measuring quadriceps femoris muscle strength, the patient was placed on the edge of the bed in a sitting position. The assessor placed the HHD in the distal part of the patient's leg and asked the patient to straighten the knee. To measure tibialis anterior muscle strength, the assessor held the patient's distal leg with one hand and placed the HHD on the metatarsal bone and the back of the patient's toe with the other hand, and asked the patient to bend the toe upwards. Muscle strength was measured three times for each patient and the maximum score was considered.

To determine the reliability, the rater was trained how to work with the dynamometer under the supervision of a trained physiotherapist (an assistant professor, Department of Physical Therapy, Kerman University of Medical Sciences, Kerman, Iran, with more than 6 years of educational and clinical experiences) during three 2-hour sessions and performed the rating after approval. The rater evaluated 15 patients admitted to the intensive care unit of Afzalipour Hospital twice (with an interval of 2 hours). The intraclass correlation level for all muscles was more than 0.99 (P<0.001). A single person performed all evaluations in each of the measurements.

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