Branched chain amino acids (BCAA) promote skeletal muscle protein synthesis and inhibit muscle atrophy. They thus have positive effects on muscle power, but have never been examined for the effects on PM/DM patients. To assess the efficacy and safety of BCAA in the treatment of PM/DM, a randomized, open label extension study for 12 weeks was performed. The primary end point was average manual muscle test (MMT) score less than 9.5 were enrolled in the study. Patients with MMT score were administered daily in 3 divided doses. After 12 weeks, patients with MMT score improvement rate of the average FI scores of all tested motions (head lift, shoulder flexion, and hip flexion) through the first 12 weeks was significantly larger in the TK-98 group. No difference was found in the disease activity throughout the extension study. The increase of the FI scores of shoulder flexion at 12 weeks was significantly larger in the TK-98 group (27.9±5.67 and 12.8±5.67 in the right shoulder flexion [P < 0.05], 27.0±5.44 and 13.4±5.95 in the left shoulder flexion [P < 0.05]). The improvement rate of the average FI scores of all tested motions (head lift, shoulder flexion, and hip flexion) through the first 12 weeks was comparable.

Conclusion: Although BCAA exerted no effects in the improvement of the muscle strength evaluated with MMT, they were effective in the improvement of dynamic repetitive muscle functions in patients with PM/DM without significant increase of adverse events.

Disclosure of Interests: None declared