312. LEG MUSCLE STRENGTH IS REDUCED AND IS ASSOCIATED WITH PHYSICAL QUALITY OF LIFE IN ANTEUTROPHIL CYTOPLASMIC ANTIBODY-ASSOCIATED VASCULITIS

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Background: Physical quality of life is reduced in ANCA-associated vasculitis (AAV). This study aims to investigate whether this may be explained by reduced muscle strength and physical activity resulting from disease damage and/or steroid myopathy.

Methods: Forty-eight AAV patients were sequentially included from the outpatient clinic. Patients in different stages of disease and treatment underwent measurements of muscle strength and anthropometric parameters. Patients filled in physical activity (Baecke) and quality of life questionnaires (RAND-36) and carried an accelerometer for a week. Muscle strength and physical activity were compared to quality of life, prednisolone use and disease duration. Patients receiving a high dose of prednisolone at the first visit received a repeat measurement after prednisolone was tapered.

Results: Most AAV patients had lower knee extension (76%) and elbow flexion (67%) forces than expected based on healthy norms. Also, physical (P < 0.001) and mental (P = 0.01) quality of life were significantly reduced compared to healthy norm values. Lower knee extension force (P = 0.009), younger age (<70 P = 0.001) and relapse of vasculitis (P = 0.003) predicted lower age-adjusted physical quality of life. Lower Baecke index (P = 0.006), higher prednisolone dose (P = 0.005) and ENT involvement (P = 0.006) predicted lower age-adjusted mental quality of life. Leg muscle strength showed no association with current or cumulative prednisolone use, but improved after tapering prednisolone. Disease duration was longer in patients with knee extension force below healthy norms (P < 0.006).

Conclusion: Knee extension force and physical activity are positively associated with quality of life in AAV. Knee extension force decreases with longer disease duration, suggesting that disease- and corticosteroid-related damage have a cumulative negative effect on muscle strength.

Disclosures: None