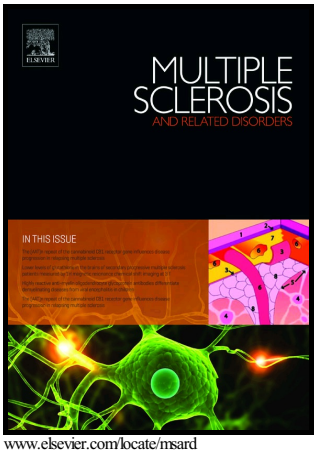

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ABSTRACT

Background.

Muscle carnosine is related to contractile function (Ca^{++} handling) and buffering of exercise–induced acidosis. As these muscular functions are altered in Multiple Sclerosis (MS) it is relevant to understand muscle carnosine levels in MS.

Methods.

Tibialis anterior muscle carnosine was measured in an animal MS model (EAE, experimental autoimmune encephalomyelitis, n=40) and controls (CON, n=40) before and after exercise training (EAE_{EX}, CON_{EX}, 10d, 1h/d, 24m/min treadmill running) or sedentary conditions (EAE_{SED}, CON_{SED}). Human m. vastus lateralis carnosine of healthy controls (HC, n=22) and MS patients (n=24) were measured.