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ACCEPTED MANUSCRIPT

Overweight in elderly people induces impaired autophagy in skeletal muscle

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Abstract

Sarcopenia is the gradual loss of skeletal muscle mass, strength and quality associated with aging. Changes in body composition, especially in skeletal muscle and fat mass are crucial steps in the development of chronic diseases. We studied the effect of overweight on skeletal muscle tissue in elderly people without reaching obesity to prevent this extreme situation. Overweight induces a progressive protein breakdown reflected as a progressive withdrawal of anabolism against the promoted catabolic state leading to muscle wasting. Protein turnover is regulated by a network of signaling pathways. Muscle damage derived from overweight

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