The particularities of specific kinetotherapy on eldery patients with osteoporotic vertebral fractures

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Abstract

Osteoporotic vertebral fractures in the elderly appear secondary to slow loss of axial bone mass, but also because of increased fall risk in this particular category of patients. Until now, extraskeletal prevention factors have not received special attention.

Most prevention stategies of vertebral fractures have focused on increasing biomechanical resistance, especially by drug decrease of bone turnover, usually the first line therapy for these patients. These therapies are addressed to bone density loss more than for pain reduction or physical impairments.

Considering muscle performance connected to bone quality, the fall risk and the outlook on this special category of patients, the particularities of functional rehabilitation adapted on elder patients will be evidenced.

A complete program of re-education regarding intensity, frequency and duration of physical exercise for eldery patients with osteoporotic vertebral fractures has not been established yet.

Decreased muscle and functional performance, lack of coordination, and spinal cord damage (kyphosis, scoliosis), are almost physiological impairments in the eldery, but also the increase of postural balance, slow walking velocity have been identified as fall risk factors.

Vertebral osteoporotic fractures may be prevented or treated using complex multidisciplinary programs, including patient re-education and individual traning programs, adapted to every patient.

Keywords: kinesitherapy, osteoporosis, vertebral fractures, elder