Physiological asymmetry of trunk ranging and pelvis motility: an anatomo-functional study in 80 healthy subjects

*Claudio Macchi, **Claudia Biricolti, **Lorenza Cappelli, **Francesca Galli, *Raffaele Molino-Lova, *Francesca Cecchi, *Alvaro Corigliano, *Benedetta Miniati, */**** Andrea A. Conti, ***Massimo Gulisano, ***Claudio Catini and */**** Gian Franco Gensini

* Don Gnocchi Foundation, IRCCS, Florence, Italy; ** INRCA, Geriatric Department, IRCCS, Florence, Italy; *** Department of Human Anatomy and Histology, University of Florence, Italy; **** Department of Internal Medicine and Cardiology, University of Florence, Italy.

SUMMARY

A key feature in physiotherapeutic treatment of patients with motion disturbances is the appropriate ranging of the trunk and pelvis motility. Eighty subjects randomly selected and free from known pathology of the muscular-skeletal and/or of the neurological system classed into four groups according to the age and the sex have been assessed, by using a new, simple and easy administrable tool. Our results demonstrate that the new measurement tool showed a very low intra- and inter-observer variability, that healthy subjects showed a more adducted and elevated right scapula if compared to the contralateral one and, as regard as the pelvic motion, a broader joint excursion in passive motion compared with active motion in the overall group, a broader joint excursion in young subjects compared with elderly ones, and a broader joint excursion in female subjects compared with males subjects. In conclusion our study allowed to identify a range of physiological asymmetry and pelvis motility. Such a range of physiological asymmetry might be useful as a reference for the physiotherapists.