

## Effects of physical activity on blood pressure monitoring and morphometric parameters of the left ventricle and of the abdominal aorta in healthy elderly subjects

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*Key words:* heart, abdominal aorta, blood pressure, physical activity.

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### SUMMARY

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To investigate the effects of physical activity not only on morphometric left ventricular parameters, but also on the abdominal aorta diameter and on blood pressure, we enrolled 100 healthy subjects, 50 males and 50 females, aged between 63 and 91 years (mean  $73.3 \pm$  s.d. 7.7), each divided into two subgroups, sedentary and non sedentary, come to our observation for a diagnostic screening. For each subject an Echography was performed, by using an Acuson 128XP10 apparatus, equipped with a 2 MHz phased array probe, both for the study of the heart and for the study of the abdominal aorta. Then, all the subjects underwent 24 hours blood pressure monitoring by using a P6 Delmar apparatus in order to get mean systolic and diastolic blood pressure. Diastolic blood pressure was significantly related to physical activity (sedentary > non sedentary,  $P < 0.01$ ), while systolic blood pressure was not; left ventricle and abdominal aorta diameters were both significantly related to sex (males > females,  $P < 0.001$ ), but left ventricle diameter was significantly related to diastolic blood pressure ( $P < 0.01$ ), while abdominal aorta diameter was significantly related to systolic blood pressure ( $P < 0.001$ ). Our data suggest that physical activity might be strongly recommended to control blood pressure.