Blood Pressure Monitoring

2.5 Correlation between Central Obesity and Nocturnal Hypertension in a female population

M.C. Bravi (1), C. Capristo (1), M. Compagnucci (1), L. Gasbardone (1)

(1)Azienda Ospedaliera San Camillo-Forlanini, Roma, Italy

Introduction. Central obesity (CO) is a risk factor for cardiovascular diseases for females. One of the indices of CO, the abdominal circumference (AC) as well as the body mass index (BMI) are particularly high in some populations. Whether the higher CO and BMI observed in women may be associated to higher cardiovascular risk remains to be substantiated. Changes in blood pressure may be associated to an increased BMI, however it is not known whether night-time hypertension might be considered as an additional cardiovascular risk factor.

Aim. In this study we evaluated the relationship between night-time hypertension, as evaluated continuous arterial blood pressure monitoring, and CO and BMI and whether this relationship may be gender dependent.

Methods. We studied 163 patients, antihypertensive therapy free, with a mean age of $54,55 \pm 13,36$ years with BMI $26,13 \pm 3,76$ and CA $94,76 \pm 10,78$ cm. Female patients were 46,63%. The occurrence of CO has been evaluated according to NCEP-ATP III criteria. In the female group we observed a greater CO (chi-square² 10,65; $P < 0,005$) and no differences in BMI ($26,40 \pm 2,98$ vs $25,82 \pm 4,49$; P NS) when compared with the male group. Women with greater CO had a greater incidence of night-time hypertension (chi-square² 17,10; $P < 0,00005$) and a significant correlation between AC and systolic blood pressure ($P < 0,001$).

Conclusions. We suggest that, in female patients, CO may play a significant role in the evaluation of cardiovascular risk.