

according to both the 2018 European Society of Cardiology/European Society of Hypertension (ESC/ESH) guidelines and the 2017 American College of Cardiology/American Heart Association (ACC/AHA) guidelines.

**Results:** A total of 622 individuals (78.9% females), with a mean age of  $54.2 \pm 14.0$  years and mean systolic/diastolic BP  $129.1 \pm 18.9/78.8 \pm 10.3$  mmHg, were included. Rheumatoid arthritis (RA) was the most common rheumatic disease (39.2%), followed by osteoarthritis (14.5%), seronegative spondyloarthropathies (10.8%), systemic lupus erythematosus (SLE) (10.5%) and psoriatic arthritis (8.2%). According to the 2018 ESH/ESC guidelines, overall prevalence of hypertension reached 54.5%. The highest rates of hypertension were observed in osteoarthritis (69.6%) followed by RA (60.9%) and psoriatic arthritis (57.8%), whereas lower rates were observed in SLE (35.7%) and seronegative spondyloarthropathies (39%). In our hypertensive population, 78.3% were aware that they had hypertension. Less than three-quarters of the hypertensives were treated (67.2%). Only 39.5% of treated hypertensives had controlled BP at their visit. When defined by the 2017 ACC/AHA guidelines, prevalence of hypertension reached 72.4%, while only 14% of treated hypertensives would have obtained the BP goal.

**Conclusions:** In a large cohort of patients with rheumatic diseases, comorbid hypertension was highly prevalent according to ESH/ESC guidelines affecting more than half of rheumatologic patients. Prevalence of hypertension rises even further according to the ACC/AHA guidelines. However, these rates may vary according to the underlying rheumatic disease. Although the vast majority of hypertensives received treatment, BP was controlled in fewer than half of treated patients. Moreover, awareness rates are not optimal. While a white-coat hypertension effect cannot be excluded, our findings highlight that physicians dealing with rheumatologic patients need to be more diligent in identifying and treating high BP.

#### **HYPERTENSIVE EMERGENCIES AND URGENCIES: BLOOD PRESSURE MANAGEMENT AND ITS RELATIONSHIP WITH SHORT AND MEDIUM TERM OUTCOME**

C. Giannattasio<sup>1,2</sup>, A. Maloberti<sup>1,2</sup>, G. Magni<sup>2</sup>, G. Cassano<sup>2</sup>, N. Capsoni<sup>2</sup>, S. Gheda<sup>2</sup>, G. M. Azin<sup>2</sup>, M. Zacchino<sup>2</sup>, A. Rossi<sup>2</sup>, C. Campanella<sup>2</sup>, M. Bergamaschi<sup>2</sup>, M. Battistini<sup>2</sup>, T. Valobra<sup>2</sup>, A. Moreo<sup>1</sup>, A. Beretta<sup>3</sup>, A. Bellone<sup>3</sup>. <sup>1</sup>Cardiology 4, ASST Niguarda Cà Granda Hospital, Milan, Milan, ITALY, <sup>2</sup>School of Medicine and Surgery, Milan-Bicocca University, Milan, ITALY, <sup>3</sup>Emergency Department, ASST Niguarda Cà Granda Hospital, Milan, ITALY

**Objective:** Data regarding prevalence and clinical management of hypertensive emergencies and urgencies are lacking and heterogeneous. Our goal is to characterize patients with hypertensive emergencies and urgencies admitted to the emergency department (ED) of Niguarda hospital. In this population we also want to evaluate factors associated with organ damage, adherence to guidelines and the impact of blood pressure (BP) management on short-term (admission to hospital and hospital mortality) and medium-term outcomes (recurrence).

**Design and method:** We performed a single-centre retrospective study collecting data about all adult patients with systolic blood pressure  $\geq 180$  mmHg and/or diastolic blood pressure  $\geq 120$  mmHg admitted to our hospital's ED during 2017.

**Results:** Admission to ED for BP elevation were 706 (0.95% of total admission to ED), of whom 34.8% were hypertensive emergencies and 65.2% were hypertensive urgencies. Patients with hypertensive emergencies were older, mainly male, with more comorbidities and more symptomatic at ED admission. In the emergencies group, we observe a BP reduction rate of  $18.82 \pm 12.1\%$  within  $110.1 \pm 11.9$  minutes; the most used drugs were nitroglycerin, furosemide and labetalol. In the urgencies group, the BP reduction rate was 19% and the most used drug was short-acting nifedipine. Age, sex, smoking, clinical history of heart failure and chronic obstructive pulmonary disease, symptoms at ED admission and eGFR have been recognised as factors associated with organ damage. Instead, BP at ED admission and its management didn't appear to have a significant impact on outcomes.

**Conclusions:** Our study demonstrated good adherence to guidelines in the treatment of hypertensive emergency than of hypertensive urgencies. On the other hand, no significant association were found between the BP management in the ED and the short-term and medium-term outcomes.

#### **PREVALENCE OF CARDIOVASCULAR RISK FACTORS AMONG HYPERTENSIVE EGYPTIANS, DATA FROM THE EGYPTIAN SPECIALIZED HYPERTENSION CLINICS**

A. Elfaramawy<sup>1</sup>, W. El Arousy<sup>1</sup>, G. Youssef<sup>1</sup>, D. El Remisy<sup>1</sup>, H. Eldeeb<sup>1</sup>, A. Abdelaal<sup>2</sup>, M. Ibrahim<sup>1</sup>. <sup>1</sup>Cardiology Department, Cairo University, Cairo, Egypt, <sup>2</sup>Cardiology Department, Helwan University, Cairo, Egypt

**Objective:** Data regarding the prevalence and characteristics of cardiovascular (CV) risk factors among Egyptian hypertensive patients are limited. Nationwide Specialized Hypertension Clinics (SHC) were initiated for screening, investigat-

ing, and treating hypertensive patients. This study aimed to determine clinical characteristics and CV risk profile of hypertensive Egyptians attending the SHC

**Design and method:** Data of 4701 hypertensive patients presented to the SHC in nine university hospitals covering different geographical areas of Egypt between October 2014 and September 2017 was collected. Data included blood pressure (BP) value, clinical data, socio-demographic characteristics, anthropometric measurements and cardiovascular risk profile.

**Results:** The patients mean age was  $51.8 \pm 11.5$  years, (58.7% were older than 50 years and 58.5% were females. The mean office systolic and diastolic BP were  $145.2 \pm 22.4$  and  $88.7 \pm 12.9$  mmHg, respectively). For cardiovascular factors, (58.6%) were obese, (25.1%) were Diabetics and (23.4%) were smoker. Obesity was more prevalent in females than males (65.7% versus 53.0%,  $p < 0.001$ , respectively), while dyslipidemia and smoking were significantly higher in male patients. The highest levels of blood pressures and prevalence of all CV risk factors mainly, obesity (63.3%) and smoking (48.9%) were observed in the Delta region; despite been significantly younger in age.

**Conclusions:** This study revealed high prevalence of modifiable CV risk factors among a cohort of Egyptian hypertensive patients attending SHC. Pattern of risk factors across different geographic regions may be attributed to rapid urbanization. Governmental and community based approaches are needed for better hypertension control and associated CV risk factors.

#### **LOW SKELETAL MUSCLE MASS IS ASSOCIATED WITH INCREASED ARTERIAL STIFFNESS IN COMMUNITY-DWELLING ELDERLY INDIVIDUALS: THE WAKAYAMA STUDY**

Y. Zhang<sup>1</sup>, N. Miyai<sup>1</sup>, M. Nakayama<sup>1</sup>, M. Sakaguchi<sup>1</sup>, M. Kawai<sup>1</sup>, S. Hattori<sup>1</sup>, M. Utsumi<sup>1</sup>, T. Takeshita<sup>2</sup>, K. Miyashita<sup>3</sup>, M. Arita<sup>1</sup>. <sup>1</sup>Wakayama Medical University, Graduate School of Health and Nursing Science, Wakayama, JAPAN, <sup>2</sup>Wakayama Medical University, School of Medicine, Department of Public Health, Wakayama, JAPAN, <sup>3</sup>Wakayama Medical University, School of Medicine, Department of Hygiene, Wakayama, JAPAN

**Objective:** Age-related decline of skeletal muscle mass, known as sarcopenia, is related to insulin resistance, inflammation, and oxidative stress. The aim of this study was to investigate the association between low skeletal muscle mass and arterial stiffness in a community-dwelling elderly individuals.

**Design and method:** Study participants consisted of general population who participated in the Wakayama Health Promotion Study (the Wakayama Study). Of the participants, 1795 apparently healthy elderly individuals (mean age:  $71 \pm 5$  years) without a history of treatment for cardiovascular disease, renal disease and orthopedic disease were enrolled in this study. Bioelectrical impedance analysis was performed to estimate appendicular skeletal muscle mass (ASM). A value of ASM was normalized for height and converted to an ASM index. The brachial-ankle pulse wave velocity (baPWV) was measured using a simple automatic oscillometric technique with an appropriate size cuff.

**Results:** The ASM and ASM index were  $11.1 \pm 2.5$  kg and  $4.4 \pm 0.7$  kg/m<sup>2</sup> respectively, and were significantly lower in females than in males ( $p < 0.001$ ). The subjects were divided into subgroups according to sex-specific percentiles of ASM index and were defined as sarcopenic group ( $<15$  percentile) and normal group ( $\geq 15$  percentile). In females and males, the baPWV was significantly higher in sarcopenic group than normal group after adjusting for potential confounders (females:  $17.7 \pm 4.1$  m/s vs.  $17.2 \pm 3.3$  m/s,  $P = 0.001$ ; males:  $18.6 \pm 4.0$  m/s vs.  $17.4 \pm 3.5$  m/s,  $P < 0.001$ ). Multiple regression analysis revealed that ASM index was associated with baPWV independent of age, obesity, systolic BP, antihypertensive medication and diabetes mellitus (females:  $b = -0.147$ ,  $P < 0.001$ ; males:  $b = -0.192$ ,  $P < 0.001$ ).

**Conclusions:** In elderly individuals, the excessive loss of skeletal muscle mass is significantly associated with increase of arterial stiffness, and may lead to greater risk of cardiovascular events.

#### **PREVALENCE OF ARTERIAL HYPERTENSION AND TRAIT ANXIETY IN MALES OF OPEN URBAN POPULATION**

L. Gapon<sup>1</sup>, E. Akimova<sup>1</sup>, M. Kayumova<sup>1</sup>, E. Gakova<sup>1</sup>, V. Gafarov<sup>2</sup>, V. Kuznetsov<sup>1</sup>. <sup>1</sup>Tyumen Cardiology Research Center, Tomsk National Research Medical Center, RUSSIAN Academy of Sciences, Tyumen, RUSSIA, <sup>2</sup>Research Institute of Therapy and Prevention, RUSSIAN Academy of Sciences, Novosibirsk, RUSSIA

**Objective:** To define correlations of arterial hypertension (AH) and trait anxiety (TA) prevalence in open urban population of males aged 25–64 years.

**Design and method:** A cross-sectional epidemiological study was conducted based on representative sample formed out of the voting lists of 1000 males (250 people of all four decades of life) from one of the Tyumen administrative regions;