# EDITORIAL

# Climacteric Period and Cardiovascular risk: a Golden Opportunity to Watch and Succeed!

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Centro Cardiovascular da Universidade de Lisboa (CCUL), Centro Académico de Medicina de Lisboa (CAML), Faculdade de Medicina da Universidade de Lisboa<sup>1</sup>, Lisboa<sup>1</sup>, Lisboa<sup>1</sup>, Centro Académico de Medicina de Lisboa<sup>1</sup>, Lisboa<sup>1</sup>, Editorial referring to the article: Cardiovascular Risk Factors, Functionality, and Quality of Life in Climacteric Women

The gradual loss of ovarian function with concomitant decrease in estrogen levels, characteristic of the climacteric period, leads to several metabolic changes and symptoms. Significant effects on the health and quality of life of women occur, and vasomotor symptoms during this transitional period are almost universally recognized. Among physical symptoms, hot flushes and night sweats are very prevalent and may be very disturbing.

However, cardiovascular risk is frequently neglected not only by these women, but surprisingly, also by part of the medical community.<sup>1</sup> Metabolic changes of the climaterium are associated with increased risk of diabetes mellitus, metabolic syndrome and cardiovascular disease.<sup>2</sup> Additionally, the rate of cardiovascular events markedly increases after the age of 45. This is extremely relevant, as cardiovascular disease is the single most frequent cause of death among women.<sup>3</sup>

Scientific societies have played a crucial role in promoting initiatives to increase awareness and to reduce gender disparities regarding cardiovascular outcomes.<sup>4</sup> Multidisciplinary action is required. Primary care physicians, cardiologists and gynecologists should all be actively involved in the care of women, particularly during the climacteric period. Collaboration is essential to allow for early identification of cardiovascular risk factors that are amenable to interventions.

A consensus statement published in 2007 by European cardiologists and gynecologists<sup>2</sup> summarized the available evidence at the time regarding cardiovascular risk among peri-menopausal women. The document aimed at increasing global awareness and setting

## Keywords

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Centro Cardiovascular Universidade Lisboa - Faculdade de Medicina de Lisboa Av. Prof. Egas Moniz MB. Postal Code: 1648-028, Lisboa – Portugal E-mail: catarinasousacardio@gmail.com specific goals to reduce the burden of cardiovascular diseases and improve overall management of this population. Still, more than a decade later, cardiovascular diseases are still a major cause of mortality and loss of quality of life in these women. Additionally, patients' acknowledgement of the disease risk and its impact on their lives has received more and more attention in the last decades.<sup>5</sup> Patient reported outcome measures (PROM) have emerged as important outcomes in disease impact, specifically in the cardiovascular field and may be particularly in climacteric women.

In this issue of the IJCS, a study by Chaves et al.<sup>6</sup> presents a descriptive analysis of a cohort of 30 women over 45 years old hospitalized with cardiovascular disease, namely heart failure, acute coronary syndrome or indication for cardiac surgery. Besides the traditional characterization of demographic data and cardiovascular risk factors of this population, the authors applied two scores - the Functional Independence Measurement (FIM) and the Medical Outcome Study Questionnaire Short Form 36 (SF 36). FIM was initially used in rehabilitation hospitalized patients and has been applied as a generic score to evaluate functional performance.<sup>7</sup> SF 36<sup>8</sup> assesses the health status of patients and includes eight items: 1) limitations in physical activities due to health problems; 2) limitations in social activities due to physical or emotional problems; 3) role limitations due to emotional problems; 4) bodily pain; 5) general mental health (psychological distress and well-being); 6) role limitations due to emotional problems; 7) vitality (energy and fatigue); and 8) general health perceptions. Arterial hypertension, dyslipidemia and sedentary lifestyle were highly prevalent and affected at least half of the patients. This group had a good perception of their functional and physical capacity. On the other



Catarina de Sousa, MD Cardiologist Invited assistant of Cardiology at Faculty of Medicine - University of Lisbon (FMUL) Researcher at the Cardiovascular Center of the University of Lisbon (CCUL) hand, perception of social and emotional aspects as well as mental health were diminished.

In fact, a high prevalence of cardiovascular risk factors in this group is not surprising. Other studies have reported similar findings.<sup>9,10</sup> Blood pressure increases with age due to vascular stiffening. A decrease in vasorelaxation is observed with the decline in estrogen levels in the post-menopause, in addition to an increase in plasma renin activity. Sympathetic overactivity and insulin resistance also occur, which further contributes to increasing blood pressure and the emergence of metabolic disorders.

Interestingly, despite the perception of preserved functional and physical capacity, these women report a low level of regular physical activity. Additionally, a low sense of social, emotional, and mental status was noted. During the climacteric period, weight gain and change in fat distribution are frequent. Furthermore, vasomotor symptoms are also more frequent in women who are physically less active.<sup>11</sup> Thus, in this particular period, regular physical exercise can play a favourable effect on body composition, body weight and bone mineral density, counteracting the overall metabolic changes, with a positive effect on the control of cardiovascular risk factors. It is also crucial in the control of somatic

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symptoms (probably overvalued by women when compared to the awareness of identifying and controlling cardiovascular risk factors) and improvement in the quality of life and sense of well-being.

We might say that the sample was too small for further associations. The authors could have gone further in the analysis of other cardiovascular risk factors and associations with other important physical variables, such as waist circumference, heart rate, and blood pressure. A more detailed description of the clinical condition affecting the patient was also warranted. "Cardiac surgery" is a very vague term, and the lack of clinical follow-up, acknowledged by the authors, limits the conclusions and applicability of this study, as no inferential analysis was performed.

Nevertheless, this group represents the real-world population of climacteric women, with a high prevalence of cardiovascular risk factors and cardiac diseases.

In summary, this "natural" transitional phase in women carries a high burden of cardiovascular risk and diminished quality of life. Multidisciplinary programs are needed to assist women during this transitional phase, in terms of symptom control, management of cardiovascular risk factors and emotional status, improving the quality of life and ultimately their lifetime prognosis.

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