Letter to editor

Physical Activity and Hormonal Cycles in Women: The Need for a More Active Life in The Post-Pandemic Era

Francesca Coppi[1], *Anna Vittoria Mattioli*[2]

[1]Cardiology division. Azienda ospedaliero-universitaria di Modena, Italy; [2]Surgical, Medical and Dental Department of Morphological Sciences related to Transplant, Oncology and Regenerative Medicine, University of Modena and Reggio Emilia, Italy

To the Editor,

We have read with great interest the article "Menstrual cycle and Exercise." by Gonzalo Algul S and coworkers (1) and we found it of interest in the field of prevention of cardiovascular disease in women.

Authors reviewed the effects of different exercise and intensity on menstrual cycle.

With reference to the findings reported in the paper, we would like to make the following contribution to the discussion.

Hormonal changes over a woman's lifetime profoundly affect cardiovascular risk and women's perception of risk. Since physical exercise is still a milestone in cardiovascular prevention, it is extremely important to understand the relationship between the hormonal cycle and physical exercise. (2,3)

The recent pandemic has shown that men and women react to stress differently. Women who were most affected by stress during the pandemic reacted with an eat to cope with stress response. Several manuscripts show that physical activity decreased during the pandemic especially in women compared to men. At the same time, women have increased their sedentary lifestyle. (4,5,6) Eat to cope, reduced physical activity and increase sedentary habits led to overweight and obesity. The development of obesity and the localization of fat deposits is strongly influenced by the hormonal cycle in women with an increase in visceral obesity with the onset of menopause. (6)

Women engage in less physical activity throughout their lives for various reasons including stereotypes and socio-economic conditions that lead to underestimating the importance of physical activity in maintaining good health. In recent years in industrialized countries this condition seems to have changed while a great social and religious influence persists in some low-income countries. (7) By including these lifestyle changes in the different phases of the hormonal cycle, it is clear that the recent pandemic has negatively affected women's health. It is therefore necessary to support a return to a correct and above all more active lifestyle. The reasons that limit physical activity in women are different: low habit of practicing sports, work commitment that adds to the social role of family care, the high cost of sports facilities in our region are just some of the objective limitations. which act by making women less active than men. This gap increases with increasing age and with the parallel increase in responsibilities in women's lives. Furthermore, the recent identification of Post-Acute Sequelae of SARS-CoV-2 Infection in subjects, even if affected by the asymptomatic infection, has stimulated the interest in physical activity to counteract this long-term damage. (8,9,10) It is therefore essential to increase our knowledge in this direction and the work of Agul and coworkers provides interesting insights into the role that hormones play in the performance of physical activity in women.

Conflicts of Interest: Each author declares that he or she has no commercial associations (e.g. consultancies, stock ownership, equity interest, patent/licensing arrangement etc.) that might pose a conflict of interest in connection with the submitted article.

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Correspondence:
Anna Vittoria Mattioli,
University of Modena and Reggio Emilia
Via del pozzo, 71 41100 Modena (Italy)
Phone: 0039/59/4224043 Fax: 0039/59/4224323
E-mail: annavittoria.mattioli@unimore.it