Obesity Medicine

Coffee and cardiovascular risk burden in women

--Manuscript Draft--

Manuscript Number:	
Article Type:	Correspondence
Keywords:	coffee; women health; antioxidants
Corresponding Author:	Anna Vittoria Mattioli, MD PhD Università degli Studi di Modena e Reggio Emilia Modena, Modena ITALY
First Author:	Anna Vittoria Mattioli, MD PhD
Order of Authors:	Anna Vittoria Mattioli, MD PhD
Abstract:	Letter related to “Mousavi A, Saedisomeolia A, Yekaninejad M, Ildarabadi A, Meshkani M, Vahid-Dastjerdi M. Effect of green coffee supplementation on androgens level in women with polycystic ovary syndrome: A Randomized Clinical Trial. Obesity Medicine, 2020, vol 20. https://doi.org/10.1016/j.obmed.2020.100298”
Suggested Reviewers:	Sabina Gallina sabina.gallina@unich.it very expert on women health
Opposed Reviewers:	

Highlights

- PCOS is a known cardiovascular risk factor for women. It belongs to the categories of sex-specific cardiovascular risk factors
- Coffee consumption was associated with a decreased risk of developing asymptomatic PAD in a population of pre-menopausal women
- Coffee could be an excellent functional beverage, containing a range of polyphenolic compounds

Coffee and cardiovascular risk burden in women

Anna Vittoria Mattioli[1], MD, PhD

[1] Department of Surgical, Medical and Dental Department of Morphological Sciences related to Transplant, Oncology and Regenerative Medicine (University of Modena and Reggio Emilia, Italy)

Letter related to "Mousavi A, Saedisomeolia A, Yekaninejad M, Ildarabadi A, Meshkani M, Vahid-Dastjerdi M. Effect of green coffee supplementation on androgens level in women with polycystic ovary syndrome: A Randomized Clinical Trial. Obesity Medicine, 2020, vol 20. https://doi.org/10.1016/j.obmed.2020.100298"

No conflict of interest

Address for correspondence:
Prof Anna Vittoria Mattioli,
Surgical, Medical and Dental Department of Morphological Sciences related to Transplant, Oncology and Regenerative Medicine
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

Dear Editor,

We have read with great interest the article “Effect of green coffee supplementation on androgens level in women with polycystic ovary syndrome: A Randomized Clinical Trial. by Mousavi A and coworkers [2020] and we found his manuscript of importance with a view to clinical prevention. This randomized study examined the effect of green coffee supplementation on androgens level in women with Poly-Cystic Ovary Syndrome (PCOS). Authors found that supplementation of 400 mg green coffee a day for six weeks significantly reduced free testosterone, triglyceride, and cholesterol levels so they concluded that green coffee might help to improve Poly-Cystic Ovary Syndrome (PCOS).

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

PCOS is a known cardiovascular risk factor for women. It belongs to the categories of sex-specific cardiovascular risk factors. These conditions taking place during the fertile years and around menopause represent early markers of future CVD and provide a unique opportunity for healthcare professionals to attempt early identification of women who may be at risk of developing cardiovascular disease [Mattioli AV 2019]. Mousavi A et al. [2020] underlined the metabolic effects of green coffee on hormonal levels in PCOS and we stronlgy support the importance of their observation with a look to cardiovascular risk. Moreover, previously we found that coffee consumption was associated with a decreased risk of developing asymptomatic PAD in a population of pre-menopausal women [Mattioli AV 2018]. Women with high coffee consumption had a good adherence to Mediterranean Diet and high levels of physical activity suggesting a healthier lifestyle, a known factor of prevention of atherosclerosis. However the analysis adjusted for cardiovascular risk factors

support the idea of a direct action of coffee on vessels. This direct action is related to coffee antioxidants. [Mattioli, 2018]

Several in vivo studies suggested that polyphenols have antiatherosclerotic effects in the early stages of atherosclerosis development, improve endothelial function and increase nitric oxide release; modulate inflammation and, protect against platelet aggregation. [Mattioli AV 2020, Ochiai 2004]

Coffee could be an excellent functional beverage, containing a range of polyphenolic compounds that display high antioxidant activity. [de Almeida RF, 2019]

Mousavi A and coworkers evaluated the effect of coffee supplementation which probably has a lower antioxidant content than coffee drink, however their results are the prerequisite for a potential use of the drink in clinical practice to reduce cardiovascular risk in women with PCOS.

No conflict of interest

References

de Almeida RF, Trevisan MTS, Thomaziello RA, Breuer A, Klika KD, Ulrich CM, Owen RW. Nutraceutical compounds: Echinoids, flavonoids, xanthones and caffeine identified and quantitated in the leaves of Coffea arabica trees from three regions of Brazil. Food Res Int. 2019 Jan;115:493-503. doi: 10.1016/j.foodres.2018.10.006

Mattioli AV, Migaldi M, Farinetti A. Coffee in hypertensive women with asymptomatic peripheral arterial disease: a potential nutraceutical effect. J Cardiovasc Med (Hagerstown). 2018 Apr;19(4):183-185. doi: 10.2459/JCM.0000000000000626

Mattioli AV, Sciomer S, Moscucci F Maiello M, Cugusi L, Gallina S et al. Cardiovascular prevention in women: a narrative review from the Italian Society of Cardiology working groups on 'Cardiovascular Prevention, Hypertension and peripheral circulation' and on 'Women Disease'. J Cardiovasc Med 2019; 20:575-583. doi:10.2459/JCM.0000000000000831.

Mattioli AV, Pinti, M., Farinetti, A., Nasi, M., Obesity risk during collective quarantine for the COVID-19 epidemic, Obesity Medicine, 2020 https://doi.org/10.1016/j.obmed.2020.100263

Mousavi A, Saedisomeolia A, Yekaninejad M, Ildarabadi A, Meshkani M, Vahid-Dastjerdi M. Effect of green coffee supplementation on androgens level in women with polycystic ovary syndrome: A Randomized Clinical Trial. Obesity Medicine, 2020, vol 20. https://doi.org/10.1016/j.obmed.2020.100298

Ochiai, R., Y. Sugiura, Y. Shioya, K. Otsuka, Y. Katsuragi, and T. Hashiguchi. Coffee polyphenols improve peripheral endothelial function after glucose loading in healthy male adults. Nutr. Res. 2004; 34:155–159

Please wait...

If this message is not eventually replaced by the proper contents of the document, your PDF viewer may not be able to display this type of document.

You can upgrade to the latest version of Adobe Reader for Windows®, Mac, or Linux® by visiting http://www.adobe.com/go/reader_download.

For more assistance with Adobe Reader visit http://www.adobe.com/go/acrreader.