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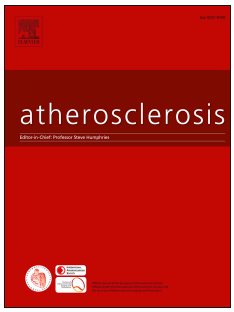

Chocolate intake in pre-menopausal women

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Chocolate intake in pre-menopausal women

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Keywords: chocolate, women, stroke.

To the Editor,

We have read with great interest the paper "Chocolate consumption and risk of stroke among men and women: A large population-based, prospective cohort study" by Dong and coworkers, published in *Atherosclerosis* [1], and we have found their conclusion of importance, with a view on clinical prevention.

With reference to the findings reported in the paper, we would like to make the following contribution to the discussion. In a recent analysis performed on 650 healthy women in pre-menopausal age (age range 45-54 years), we found that chocolate intake was higher in women in the low quartile of adherence to Mediterranean Diet (low Med Score). This subgroup of women showed a lower ABI index compared to women with higher Med Score. The analysis of sources of antioxidants showed a greater intake from fruit and vegetables in the higher quartiles of Med Score. Coffee and tea were similarly distributed among the quartiles of Med Score [2]. Analysis from diet recall had the major limitation of missing data regarding out-of-mealtime snacking and drinking.

We clearly understand that nutritional habits in Japan deeply differ from Mediterranean ones. However, we would like to underline that in a Mediterranean lifestyle characterized by high intake of antioxidants. [3] In our population, chocolate represents only a small percentage, with a low impact on total antioxidant intake. In Mediterranean countries, wine is a strong antioxidant source and the synergistic effect of drinking wine during meals and the antioxidant bioavailability is well known [3].

Moreover, it is well known that chocolate bars contain a low level of caffeine. In a previous report on hypertensive patients, we found that those who reduced coffee intake had a higher chocolate bar consumption, which affected total caffeine intake [4]. Due to the controversial effect of caffeine on cardiovascular disease, it is possible that the amount of caffeine included in chocolate bar positively influenced the outcome [4,5,6].

Conflict of interest

The authors declared they do not have anything to disclose regarding conflict of interest with respect to this manuscript.

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