Reviews in Cardiovascular Medicine

Letter to the Editor

Comments on ``Cardiovascular effects of waterpipe smoking: a systematic review and meta-analysis"

Helmi Ben Saad[1,2,3,*]

[1] Faculté de Médecine de Sousse, Laboratoire de Physiologie, Université de Sousse, 4000 Sousse, Tunisie

[2] Heart Failure (LR12SP09) Research Laboratory, Farhat HACHED Hospital, 4000 Sousse, Tunisia

[3] Department of Physiology and Functional Exploration, University of Sousse, 4000 Sousse, Tunisia

*Correspondence: helmi.bensaad@rns.tn (Helmi Ben Saad)

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Dear Editor,

I read with great interest the systematic review and meta-analysis of Al Ali *et al.* (2020) [1] aiming to explore the clinical cardiovascular effects of narghile smoking. The authors consulted four databases (i.e., PubMed, EMBASE, Web of Science, and Cochrane Library) for studies published until December 2019 and assessing acute and/or chronic cardiovascular effects of narghile smoking. The final meta-analysis included 31 studies. The authors concluded that current level of evidence suggests that narghile smoking is associated with substantial adverse effects on cardiovascular system. The results related to the narghile smoking are remarkable and should be highlighted [1], because ignoring its serious impacts on cardiovascular and metabolic data will certainly lead to a worldwide public health problem, which doctors can undertake to prevent [2–6]. Moreover, the 2015-World Health Organization advisory note on narghile smoking [6], acclaimed additional research related to the narghile-associated disease risk. However, it is "surprising" that a systematic review "ignores" one Tunisian article [5], especially since it meets the inclusion criteria detailed by the authors. The study, which was published in early 2019 [5], aimed to compare the metabolic profiles of 29 narghile smokers and 29 apparently healthy non-smokers (AHNS) (both groups were males free from a known history of metabolic and/or cardiovascular diseases). The authors reported that compared to the AHNSs' group, the narghile smokers' group had "(i) higher values of body mass index (26.5 $\pm$ 2.3 vs. 28.2 $\pm$ 3.6 kg/m^2), waist circumference (95 $\pm$ 7 vs. 100 $\pm$ 10 cm), and triglycerides (1.22 $\pm$ 0.40 vs. 1.87 $\pm$ 0.85 mmol/L); and (ii) included a lower frequency of males having low high-density lipoprotein cholesterol (82.7% vs. 62.0%), and higher frequencies of males having obesity (6.9% vs. 37.9%) or hypertriglyceridemia (10.7% vs. 51.7%)". Both the narghile smokers' and AHNSs' groups: (i) had comparable values of fasting blood glycaemia (5.38 $\pm$ 0.58 vs. 5.60 $\pm$ 0.37 mmol/L), total-cholesterol (4.87 $\pm$ 1.16 vs. 4.36 $\pm$ 0.74 mmol/L), high-density lipoprotein cholesterol (0.92 $\pm$ 0.30 vs. 0.82 $\pm$ 0.21 mmol/L), low-density lipoprotein cholesterol (3.09 $\pm$ 0.98 vs. 2.92 $\pm$ 0.77 mmol/L), systolic blood pressure (117 $\pm$ 9 vs. 115 $\pm$ 8 mmHg), and diastolic blood pressure (76 $\pm$ 6 vs. 73 $\pm$ 7 mmHg); and (ii) included similar frequencies of males having normal weight (17.2% vs. 31.0%), overweight (44.8% vs. 62.1%), android obesity (79.3% vs. 59.6%), arterial-hypertension (10.3% vs. 10.3%), hyperglycemia (37.9% vs. 48.2%), and metabolic syndrome (51.7% vs. 34.5%). In conclusion, the present Letter is a call to encourage more rigorous research to detect the real effects of narghile smoking on cardiovascular and metabolic data.

Ethics approval and consent to participate

Not applicable.

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Conflict of interest

I report personal fees from the following pharmaceutical laboratories: AstraZeneca, Teriak, Hikma and Chiesi.

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