
To the Editor:

We read with great interest the article by Ali et al.1 on the “Acute Coronary Syndrome and Khat Herbal Amphetamine Use: An Observational Report.” This cohort and observational study has clearly enrolled the greatest number of subjects for the follow-up of subjects with the habits of khat chewing in the Gulf countries. This is a significant study, and it clearly supports the long-term notion that khat chewing is a main cause for myocardial infarction and stroke. We strongly agree with the authors that khat-associated acute coronary syndrome is associated with worse outcomes for khat users. We also agree with the authors that this study has limitations.

There are two important points that we would like to make concerning this observation. First, we2 showed that healthy individuals with a chronic history of khat use for at least one year causes significant oxidative stress and decline in serum cholinesterase activity, a reliable marker of hepatotoxicity. We attributed the observed toxicity to the organophosphate exposure. Organophosphate exposure is also a well-documented risk factor for cardiac complications and injuries.3,4 Farmers in Yemen systematically and heavily spray khat with at least 80 different pesticides for the purpose of combating common insects and to preserve the freshness of khat leaves. Second, khat-induced oxidative stress and apoptosis has also been observed by other researchers.5 Both observations2,5 are consistent with short- and long-term genotoxic and cardiac effects on khat chewers. We strongly believe that future studies should also focus on finding a link between pesticide exposure and acute coronary syndrome complications. This will minimize any confounding factors impacting the outcome of any future observational studies.

Finally, we believe that the title is incorrectly implying amphetamine as the main ingredient in khat. The main active substance in khat is cathinone, as described by the authors. We assume that it would be most accurate to indicate the amphetamine-like activity of khat in the induction of myocardial infarction. Therefore, the title should have been listed as “Acute Coronary Syndrome and Khat Herbal Amphetamine-Like Use: An Observational Report” or “Acute Coronary Syndrome and Khat Herbal Cathinone Use: An Observational Report.”

Again, we commend the authors for this interesting report.

Disclosures

None.

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