E-cigarettes (but not tobacco cigarettes) found safe for coronary circulation

By ACSH Staff — September 3, 2013

A pilot study of 60 subjects seems to show a distinct lack of adverse effects of e-cigarette use ("vaping" as it's called) on coronary artery blood flow and vascular resistance, as well as on blood levels of carbon monoxide (CO), while regular cigarettes had significant adverse effects on all measured parameters. The report was presented at the European Society of Cardiology and has not yet been published.

Dr. Konstantin Farsalinos of the Onassis Surgery Center in Kallithea, Greece, and colleagues evaluated flow and resistance of coronary arteries among 30 former smokers who were on e-cigarettes, and compared their responses to those of 30 current cigarette smokers. Both groups were evaluated after using an e-cigarette for 15 minutes; only the smokers group was evaluated after smoking 2 tobacco cigarettes. Levels of CO were measured as reflected by the well-known surrogate marker, carboxyhemoglobin.

The smokers had about an 18 percent worsening in measurements reflecting coronary microvascular (small arterial) flow and resistance. No changes were found in the vapers' flow and resistance. Since smokers are known to have elevated blood markers of CO, the smokers' baseline CO levels, as expected, were three-fold higher than the vapers, and after smoking increased by 350 percent. Neither smokers nor vapers raised their CO levels after vaping.

"This study adds to currently available evidence that supports that electronic cigarettes are significantly less harmful compared with tobacco," Dr. Farsalinos said at the European Society of Cardiology (ESC) 2013 Congress. "Monitoring of consumers for several years will determine the long-term effects of electronic cigarette use."

ACSH's Dr. Gilbert Ross found the study helpful although not definitive. "While this is only a small study and unpublished as of now, it makes perfect sense. E-cigarettes supply nicotine in water vapor, glycerine flavorant in a propylene glycol propellant, and barely detectable levels of anything else. Tobacco smoke has thousands of substances, many of which are toxic in various systems, which eventually kill over half of smokers. There's nothing comparable between vaping and
smoking physiologically except the nicotine, so anyone with scientific interest in this area would have expected no change in coronary artery circulation and CO levels. I doubt, unfortunately, that this will make much impact on the assembled antagonists warning smokers against trying this technology. I hope that smokers considering this method will read up on it themselves and ignore the unnecessarily cautious approach taken by 'the authorities' for their own corrupt or ignorant, unscientific reasons."

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