A potential pro-arrhythmic mechanism of energy drinks

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Dear Editor,

We have read with great interest the paper “Randomized Controlled Trial of High-Volume Energy Drink Versus Caffeine Consumption on ECG and Hemodynamic Parameters” by Fletcher and coworkers and we found their conclusion of importance with a view to clinical prevention of arrhythmias in young people.

With reference to the findings reported in the paper, we would like to make the following contribution to the discussion. We reported 3 cases of atrial fibrillation in young people after ingestion of commercial energy drink [2]. In one case energy drink was mixed with alcohol. Recently a young patient referred several episodes of palpitations occurring after ingestion of energy drinks and alcohol. The analysis of ECG showed a Brugada like pattern. The patients is under evaluation for Brugada syndrome. We hypothesized that caffeine and probably other substances included in the energy drinks could act as trigger for arrhythmia. This can be very dangerous for patients with unknown channelopathies.

Larger clinical trials evaluating the effects of alcohol mixed with energy drinks on cerebral and cardiovascular system are warranted.

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