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Letter to the editor concerning: "Alcohol-attributable mortality in Switzerland in 2011 – age-specific causes of death and impact of heavy versus non-heavy drinking"

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Halloween stroke syndrome

We read the study of Marmet et al. on alcohol-attributable mortality in Switzerland in 2011 published in this journal with great interest [1]. The authors clearly show that alcohol is a major cause of premature mortality in Switzerland. In young people alcohol related premature death is mainly caused by injuries and heavy drinking [1]. We wish to emphasise that, besides heavy drinking and chronic alcoholism, binge drinking specifically can have disastrous cerebrovascular consequences [2–4]. Sporting events and related social contexts, and holidays such as Halloween may be a cause for such binge drinking [5, 6]. Halloween in particular is increasingly developing as a festive season in Europe and thus as an occasion to have parties with excessive alcohol consumption [5]. By describing a case vignette, we wish to highlight the clinical condition of binge drinking and stroke, and propose the easily memorable term "Halloween stroke syndrome".

A 31-year-old otherwise healthy male returned home from a Halloween party. Four hours later he was found with a left-sided hemiplegia, hemihypesthesia, gaze deviation to the right, left-sided hemianopia, and some confusion. The cranial computed tomography (CCT) did not show early ischaemic signs, but the CT-angiography revealed an occlusion of the proximal intracranial internal carotid artery. A bridging manoeuvre with intravenous thrombolysis (rtPA) and interventional recanalisation was decided, which were partially successful in the end. Previous to the stroke, the patient had drunk 8 Bavarian beers (each 500 ml) and 8 spirits of German schnapps (each 2cl) during a Halloween party. As a thorough stroke work up showed no other causes, a heavy binge-drinking-associated thromboembolic stroke in an otherwise healthy young adult was diagnosed.

Binge drinking has been identified as an independent risk factor for stroke [3]. It is defined as consuming ≥5 drinks within a few hours [7]. With a calculated total of 24 drinks on one occasion, our patient took nearly 5 times the amount of this critical binge drinking value. The pathophysiological factors – alcohol-triggered cardiac arrhythmia and embolism, elevated blood pressure, exaggerated sympathetic reaction, endothelial lesions, thrombosis of the proximal arteries, a general increase of blood clotting, cardiotoxicity, and metabolic disturbances such as hypomagnesaemia and hypokalaemia- have all been discussed [8]. Herewith the term "Halloween stroke syndrome" is proposed for this observed clinical condition of a dangerous binge drinking pattern and associated stroke which is a further significant risk in addition to injuries, motor vehicle fatalities, aggression and assault [7, 9]. It is not intended to introduce a new scientific term but to accentuate such a clinical context by using an easily memorable eponymous term. Interestingly in the context of "Halloween," some other terms are already used such as "Halloween appendicitis", "Halloween diarrhoea." or "Halloween psychosis" [10–12].

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