## *Ginko biloba* may cause asymptomatic ventricular premature contractions!

Sir,

A 37-year-old American Society of Anesthesiologists (ASA) 1 physical status female patient weighing 59 kg presented with a history of headache for past 1 year and memory impairment for last 8 months. Routine investigations were normal, except that she had 2-3 ventricular premature contractions (VPCs)/min on electrocardiography. There was no history of alcohol or drug abuse, any proarrhythmic medication intake or signs and symptoms of any cardio-respiratory abnormality. Diagnosed with anterior an communicating artery aneurysm, coiling of the aneurysm was planned. Standard anaesthetic technique of propofol infusion (with oxygen and air), fentanyl and rocuronium was used. A digital subtraction angiography followed by coiling of the aneurysm was performed and after an uneventful procedure the patient was shifted to intensive care unit. Since the patient continued to have VPCs of similar magnitude after the procedure, we specifically asked the patient about any herbal medication intake and came to know that patient was taking *Ginko biloba* (GB) (approximately 180 mg/day) since last 5 months. At the time of discharge from hospital, the frequency of VPCs had decreased and the patient was discharged after stable post procedure course. GB is the drug mainly used for treatment of cognitive impairment and peripheral vascular disease and it is known to alter platelet function by inhibition of platelet activating factor.<sup>[1]</sup> Little is known about the pro-arrhythmic side-effects of GB. GB induced electrical storm in a patient with ischemic cardiomyopathy<sup>[2]</sup> and paroxysmal atrial fibrillation<sup>[3]</sup> has been reported previously. Occurrence of VPCs associated with GB has not been reported. The exact mechanism of cardiac arrhythmia by GB is unknown, but probably GB and its constituent alter the action potential duration and cationic currents as evident from animal studies.<sup>[3]</sup> Our assumption of GB to be the cause of VPCs in our patient is further supported by a decrease in the frequency of VPCs upon discontinuation of GB. Another problem associated with GB use is a risk of bleeding due to alteration of platelet function.<sup>[1]</sup> In our patient, there was no excessive bleeding and the pre-operative investigations were normal. However, caution is advised while using drugs that are known to increase the risk of perioperative bleeding (i.e., warfarin) in patients taking GB. As there are chances of arrhythmia with GB caution is also advised in patients who are on medications that are known to cause perioperative arrhythmias. Nearly 22-32% of patients coming for a pre-anaesthetic checkup were on some or other type of herbal medications.<sup>[4,5]</sup> So an enquiry about herbal medications should always be made during the pre-anaesthetic check-up. After five halflives, the amount of any drug left in the body is unlikely to cause harm and ideally GB should be discontinued for at least 36 h before any elective procedure.<sup>[1]</sup> With this case report, we want to stress upon the fact that GB can be a cause of VPCs in otherwise asymptomatic patients. If possible one should discontinue GB intake for at least 36 h before any elective procedure. However, in emergent situations prior preparation should be made to deal with serious arrhythmia.

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## REFERENCES

- 1. Ang-Lee MK, Moss J, Yuan CS. Herbal medicines and perioperative care. JAMA 2001;286:208-16.
- 2. Pfister O, Sticherling C, Schaer B, Osswald S. Electrical storm caused by complementary medication with *Ginkgo biloba* extract. Am J Med 2008;121:e3-4.
- Russo V, Rago A, Russo GM, Calabrò R, Nigro G. Ginkgo biloba: An ancient tree with new arrhythmic side effects. J Postgrad Med 2011;57:221.
- 4. Tsen LC, Segal S, Pothier M, Bader AM. Alternative medicine use in presurgical patients. Anesthesiology 2000;93:148-51.
- Kaye AD, Clarke RC, Sabar R, Vig S, Dhawan KP, Hofbauer R, et al. Herbal medicines: Current trends in anesthesiology practice – A hospital survey. J Clin Anesth 2000;12:468-71.

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