Ayurvedic medicine and anaesthesia

Sir,

We have read with interest the article "Ayurvedic medicine and anaesthesia" from the *Indian Journal of Anaesthesia* 2011; Vol. 55 issue 5: 334.

As mentioned by the authors, the use of complementary and alternative medicines such as herbal medicines is increasing day by day in developing as well as in developed countries. We would like to highlight a few points:

A. regarding statements made by the authors and
B. regarding available recommendations.

Regarding statements made by authors:

1. It has been stated that ginger has been found to cause hyperglycaemia.
2. Also, it can prolong bleeding time.
   These statements do not give a clear idea about the dose, type of preparation and the duration of consumption of ginger producing these effects, which may mislead the clinicians and the patients as it is a common ingredient in most of the food preparations.
3. Authors state that there are studies available in which the safety profile is tested in patients on anticoagulants and non-steroidal anti-inflammatory drugs and has advised caution for regional anaesthesia in patients consuming ginger regularly. But, the reference article quoted by the authors[1] clearly mentions that adverse bleeding has not been reported. Also, the anti-platelet effect might be dose and

preparation dependent.
It is known that ginger inhibits thromboxane synthetase activity *in vitro*. However, *in vivo* human studies have failed to demonstrate this effect.[2]

4. In the study done by Anna Lee *et al.*, which included 601 surgical patients, there was no significant association between the use of traditional herbal medicines and the occurrence of either intra- or post-operative events.[3]

Regarding available recommendations:
We can take precautions by withholding herbal medicines at least in the pre-operative period for as long as conveniently possible. Physicians from the Cleveland Clinic recommend herbal medicines to be stopped at least 7 days before the surgery.[4]

It is scientifically acceptable to utilize half-lives of these medicines to determine the discontinuation period. After 5 half-lives, the amount of any drug left in the body is unlikely to cause harm.[5] Accordingly, ginseng, valerian and St. John's wort can be stopped 7 days and ephedra, gingko, guarana, kava and licorice 1–2 days before the surgery.[6] However, patients are often unaware of these recommendations and may even present for emergency surgery.

We agree with the authors that amla and tulsi need not be stopped before the surgery. ASA guidelines regarding discontinuation of herbal medicines have not included amla and tulsi.

It has been found that morbidity associated with herbal medicine may be more prevalent in the peri-operative period because of increased physiological susceptibility to adverse effects and multiple drug use.[6] Hence, all surgeons and anaesthesiologists need to familiarize themselves with the potential peri-operative complications that may occur.

Patients have to be counseled on the potential side-effects of herbal preparations. The American Society of Anesthesiologists, on its website, recommends patients to bring all substances with prescription or over-the-counter when they meet the anaesthesiologist before surgery or on the day of surgery. The website also shows videos to explain in detail the potential side-effects of herbal medicines on surgical patients.[7]

Awareness has to be created among surgeons, anaesthesiologists and general public through media like journals, newspapers and health magazines regarding the possible interactions with anaesthetic agents.

To date, medical students do not receive any teaching, either pharmacological or clinical, on complementary medicines. This does not prepare new doctors for the practice of medicine in the 21st century.

We agree with the authors that due to the incomplete knowledge of the pharmacodynamic and pharmacokinetic properties of herbal medicines[8] and very scarce documentation of adverse anaesthetic interaction in the literature, further studies are needed regarding these issues.

Asmita P Karnalkar, Philip Mathew, AV Nadkarni, VK Dhulkhed, SS Belapure

Department of Anaesthesiology, KIMSDU, Karad, Maharashtra, India

Address for correspondence:
Dr. Asmita P Karnalkar,
G2, Siddhkrupa Sahaniwas, Krushi Colony, Vishrambag,
Sangli, Maharashtra - 416 416, India.
E-mail: asmitak55@ymail.com

REFERENCES

1. Cheng B, Hung CT, Chiu W. Herbal medicine and anesthesia. HKMJ 2002;8:123-9.
2. +Vaes LP, Chyka PA. Interactions of warfarin with garlic, ginger, ginkgo, or ginseng: Nature of the evidence. Ann Pharmacother 2000;34:1478-82.
3. Lee A, Chui PT, Aun CS, Lau AS, Gin T. Incidence and risk of adverse perioperative events among surgical patients taking traditional herbal medicine. Anesthesiology 2006;105: 454-62.
4. Whinney C. Perioperative medication, Cleveland Clinic. J Med 2009;76 S126-32.
5. Ang Lee MK, Moss J, Yuan CS. Herbal medicines and perioperative care. JAMA 2001;286:208-16
6. Heyneman CA. Perioperative considerations: Which herbal products should be discontinued. Critic Care Nurse 2003; 23:116-24.
7. Available from: http://www.asahq.org/sitecore/Lifeline/Anesthesia/Hebal-Supplements-Anesthesia.aspx, [Last accessed on 2011 Nov 21].
8. Pradhan SL, Pradhan PS. Ayurvedic medicine and anesthesia. Indian J Anaesth 2011;55:334.

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