mindful of the implications of applying current standards of the peer-review process and publication rights to the Internet.

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MAOIs and anaesthesia

To the Editor:
Patients receiving monoamine oxidase inhibitors (MAOI's) are prone to adverse interactions with other drugs, notably meperidine and indirect acting sympathomimetic agents. Anaesthetic related drugs may also be implicated.

There is no current, comprehensive database upon which to base a decision regarding the discontinuing of MAOI's prior to surgery. In order to create such a database I have sent a questionnaire to all practising anaesthetists in Canada. It is my intention to submit a yearly report to the Canadian Anaesthetists' Society.

I write to increase awareness of the questionnaire amongst Canadian anaesthetists, in order to enlist their help in its completion. I am grateful for the opportunity of so doing. Further copies of the document can be obtained by writing to the address given below.

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Xenon is another laughing gas

To the Editor:
There is concern that inhalation of N_2O may cause teratogenic effects,[1] and spinal cord symptoms.[2] Xenon does not undergo biotransformation and is non-toxic,[1] and is a more potent anaesthetic agent than N_2O) (MAC is 71% in humans.[3]) As xenon has a smaller blood/gas partition coefficient (0.20) than N_2O) (0.47), it provides rapid induction and recovery from anaesthesia.[4] It is expensive but costs may be minimized by using a minimum fresh gas flow in a closed circle system.[5]

We compared changes in the electroencephalogram (EEG) and electromyogram (EMG) during inhalation of xenon and N_2O. Seven healthy volunteers (male/female = 6/1; age 36 ± 4 yr; weight 61 ± 5 kg), with informed consent and approval by our institute, inhaled each anaesthetic gas in a random order at seven-day intervals. The EEG at frontal, temporal and occipital regions and the EMG at periocular and buccal muscles were continuously recorded using a Neuropack Four (Nihon Kohden). Xenon or N_2O in oxygen was administered via face mask by using a minimum fresh gas flow in a closed circle system. The end-tidal concentration of each anaesthetic gas was gradually increased and maintained for each ten minutes at 0.33, 0.5 and 0.66 MAC in turn. End-tidal concentrations of xenon and N_2O were monitored using a thermal conductivity gas monitor (Thermomat, Fuji Electric) and a Capnomac (Datex), respectively.

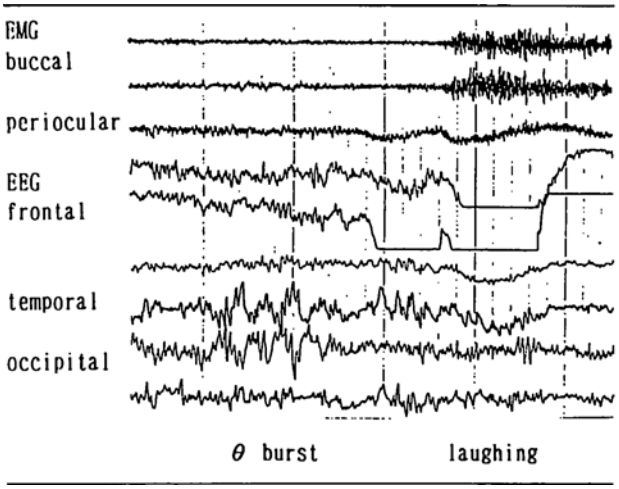

FIGURE The EEG and EMG changes when the subject started laughing during inhalation of xenon at 0.66 MAC (47%).

The EEG changes were similar with xenon and N_2O. The attenuation of α wave and slight decrease in frequency of basic rhythm were observed at 0.33 and 0.5 MACs of xenon and N_2O. Slow α and θ waves were observed at the higher MAC of 0.66 with both anaesthetics. When subjects inhaled xenon or N_2O, the remarkable change was an appearance of laughing at 0.66 MAC which was confirmed with the EMG change (Figure). Laughing was observed in 2/7 with xenon and 5/7 with N_2O (no significant difference between incidences with two anaesthetics). Xenon is an another laughing gas.

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