

# Letter to the Editor: Extrapyramidal Drug Reactions Due To A Piperazine Derivative

C Gosavi

## Citation

C Gosavi. *Letter to the Editor: Extrapyramidal Drug Reactions Due To A Piperazine Derivative*. The Internet Journal of Neurology. 2003 Volume 2 Number 2.

## Abstract

Sir:

Cyclizine is a Piperazine derivative, with both antihistaminic and antimuscarinic effects; the latter must be responsible for most of its antiemetic effects and has been considered to have no extra pyramidal effects. However I came across a case of involuntary head jerking and fixed gaze. I would like to describe a patient in whom an episode of extra pyramidal reaction developed after receiving 50 mg of cyclizine after induction of Anaesthesia.

A 38-year-old man weighing 70 kg with an otherwise unremarkable medical history was scheduled for application of 6-hole plate for fracture Radius. The vital signs and physical examination were normal. Patient was taking no medications at home and denied any drug allergy.

Anaesthesia was induced with 200 mg of Propofol and 100 microgram of intravenous fentanyl. Size 4 LMA was inserted and patient was allowed to breathe spontaneously. He also received 10 mg of morphine. Cyclizine 50 mg was given intravenously for prophylaxis against postoperative nausea and vomiting. Patient was given 40% oxygen and 60% Nitrous oxide. Isoflurane was used for maintenance of anaesthesia.

Surgery went on for 45 minutes. Postoperatively patient was taken to recovery. Ten minutes later patient developed

involuntary jerking movements of his upper half of body. On examination of patient; his vital parameters were normal and he was responding to verbal commands. His gaze was fixed. I reassured the patient. These movements continued for next 7-8 minutes and then it stopped and patient became comfortable. His gaze became normal. No intervention was required. Rest of the postoperative period was uneventful.

Extrapyramidal drug reactions have been reported to various antiemetics; like phenothiazines (e.g. prochlorperazine), antihistaminics (diphenhydramine), dopamine antagonists (e.g. metoclopramide) and 5-HT antagonists (e.g. ondansetron).

There are case reports of involuntary movements following propofol or fentanyl anaesthesia. Dystonic activity is a recognized complication of administration of cyclizine.

## References

1. Tolan MM, Fuhrman TM, Tsueda K, Lippmann SB: Perioperative Extrapyramidal Reactions associated With Ondansetron. *Anesthesiology* 1999 Jan; 90(1): 340-1
2. Stonell C: An Extrapyramidal Reaction To Ondansetron. *Br J Anaesth* 1998 Oct; 81 (4): 658
3. L. D. Paxton: Physiology And Control Of Nausea And Vomiting. *Anaesthetic Physiology And Pharmacology*. Edited by W. McCaughey, R.S.J. Clarke, J.P.H. Fee, W.F.M. Wallace; Belfast 1997: 571-582
4. King et al, *Anaesthesia* 58(3):257-60, 2003, Klawans and Moskovitz. *Journal of the Neurological Sciences*. 31(2):237-44, 1977

**Author Information**

**C. P. Gosavi, PhD., MD**

Dept. Of Anaesthetics, Leicester Royal Infirmary, University Hospitals of Leicester