

## Anesthesia in a patient with multiple allergies

Sir,

Prevalence of drug allergies shows wide variability from 10% to 40% in various studies.<sup>[1]</sup> It is reported to be 0.2% to 28% in Indian population.<sup>[2]</sup> We report successful anesthetic management of a patient having multiple drug allergies.

A 56 year old female patient was admitted with the complaint of pain in the abdomen. Investigations revealed cholelithiasis. Laparoscopic (lap.) cholecystectomy was planned. Since 15-20 years, she had generalized urticaria with itching off and on with occasional severe breathlessness requiring hospitalization and had under gone *in vitro* allergy testing by the enzyme immunosorbent assay. Besides some food substances, she was also allergic to Ciprofloxacin, Amoxicillin, Ofloxacin, Diclofenac, Paracetamol, but not to Ibuprofen, Epinephrine, Lignocaine, Theophylline, Alcohol, Iodine and Latex.

Preoperative vital parameters, blood investigations, electrocardiogram and chest X- ray were normal. Intradermal allergic testing of the anesthetic agents to be used was performed. She was allergic to Vecuronium, but was non allergic to Thiopentone, Fentanyl, Ondansetron, and Atropine. Therefore surgery was planned under epidural anesthesia.

Thoracic epidural catheter was inserted in lateral position in T 8-9 space. A total volume of 12 ml of 2% preservative free lignocaine with 50 mcg adrenaline and 25 mcg fentanyl was injected. Sensory block from T4 to L1 was achieved after 15 min. Intra operative hemodynamics remained stable. Postoperative analgesia was given using fentanyl patch and Tablet Ibuprofen. Patient was discharged uneventfully after 48 h.

Drug allergies, being one of the causes of catastrophic events occurring in the Peri-operative period, are of major concern to anesthesiologists. Although intraoperative drug anaphylaxis is rare, it contributes to 4.3% of deaths occurring during general anesthesia.<sup>[1]</sup>

Life-threatening hypersensitivity reactions are more likely to occur in patients with a history of allergy, atopy or asthma. Hence in a patient giving history of multiple drug allergies, an allergological assessment should be performed prior to surgical procedure.

Skin scratch test should precede an intradermal test in high risk patients, since the latter has a higher risk of causing anaphylaxis. Antihistaminics and corticosteroids are stopped 1 week prior to the skin testing<sup>[1]</sup>

The incidence of allergies to the commonly used drugs in the perioperative period is shown in Table 1.<sup>[1,3,4]</sup>

Cross reactivity amongst NMBA's is common.<sup>[1,3,4]</sup> Our patient was allergic to Vecuronium. We should have tested all NMBA's. The reason for not testing was time constraint. Each drug needed a day for testing as per the guidelines and the surgery was semi-emergency. Therefore, we decided to avoid NMBA's.

Allergy to induction agents is uncommon.<sup>[3,4]</sup> In spite of common belief, propofol can be used in egg, soy, peanut allergic patients.<sup>[5]</sup>

There is no evidence to support the prophylactic use of antihistaminics or corticosteroids in such patients.<sup>[4]</sup>

Anesthesia of choice for lap.cholecystectomy is general anesthesia with endotracheal intubation and controlled ventilation. As we could not use muscle relaxants, we planned for epidural anesthesia. Alternative plan was inhalational induction and maintenance using O<sub>2</sub>, N<sub>2</sub>O and Sevoflurane.

**Table 1: Incidence of allergies to the common peri-operative drugs**

Drugs	Incidence of allergy
NMBAs (succinylcholine > other NMBAs)	50-70%
Latex	20%
Antibiotics	15%
Local anesthetic agents (esters > amides)	Rare
Induction agents	Rare
Opioid analgesics	Rare
Volatile anesthetic agents	Unknown
NSAID	1%
Colloids (gelatins > hydroxyethyl starches)	Rare

NMBA = Neuromuscular blocking agent, NSAID = Non steroidal anti inflammatory drug

Thus to conclude, patient's with multidrug allergies can undergo safe anesthesia with accurate identification of drug allergens. Avoidance of the allergens may demand a change in anesthetic plan like our choice of epidural over general anesthesia.

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