Intraoperative Latex Anaphylaxis Observed in a Farmer

To the Editor.—Contact urticaria to natural latex and its products, such as rubber gloves, balloons, and condoms, is a well-known allergy type (type IV). Furthermore, latex hypersensitivity was recently recognized as one of the major IgE-mediated anaphylaxis (type I). The risk group for latex hypersensitivity includes health-care workers, hospital employees, people wearing household rubber gloves, atopic persons, rubber industry workers, and patients, especially children who have multiple surgeries and catheterizations with latex catheters.23

We encountered an intraoperative latex anaphylaxis in a patient from the eastern part of Turkey who is an practicing farmer in his own land. This 55-yr-old male patient had undergone a lower lip epidermolysis operation. It was noted that the patient was undergoing a surgery for the first time in his life. Meperidine (60 mg) was used for sedation, and induction of anesthesia was achieved using 5 µg/kg fentanyl, 5 mg/kg thiopental, and 0.1 mg/kg vecuronium followed by intubation. Anesthesia was maintained by oxygen/nitrous oxide and 1% enflurane. Forty-five minutes after the start of surgery, blood pressure decreased from 110/80 to 60/40 mmHg, and pulse increased from 80 to 110 beats/min. Extensive urticaria had developed on the skin, and severe bronchospasm was heard. Oxyhemoglobin saturation decreased to 85%. All the anesthetic agents were discontinued, and the lungs were ventilated with 100% O₂. Despite rapid intravenous administration of crystalloid and colloid solutions, blood pressure decreased to 30/0 mmHg. Ten- and 20-µg doses of intravenous epinephrine were given, and 250 mg methyl prednisolone was administered; blood pressure increased to 60/30 mmHg. An epinephrine infusion at a dosage of 0.05 µg/kg−¹ min−¹ was started. It took about 15 min to stabilize the patient. Anesthesia was maintained with a low-dose fentanyl infusion, nitrous oxide/oxygen, and the operation was completed within 20 min. Because the patient was not considered to be in the risk group, latex anaphylaxis was not suspected during the operation. An intravenous infusion of epinephrine was discontinued after the patient was taken to the post-operative intensive care unit, and the trachea was extubated uneventfully. Six weeks after discharge, skin test results with fentanyl, thiopental, and vecuronium were negative. Further history revealed that, in his daily farming activities, the patient often used latex gloves that were causing urticaria in his hands and arms. Results of analysis for specific IgE to latex using RAST method are shown in table 1. Scratch test was performed on the patient using his own rubber gloves, and the result was positive.4,5

Even though latex anaphylaxis generally is observed among certain risk groups (medical personnel, rubber industry workers), our case was different. This case was relevant because the patient has been working with latex gloves for a long time, and the reactions continued long after the elimination of latex in the operation. The use of rubber gloves and the risk factors for latex allergy should be taken into consideration when operating on patients with a history of contact urticaria. Further studies of the prevalence of latex allergy and contact urticaria are needed.

Table 1. Immunoglobulin E Concentrations

<table>
<thead>
<tr>
<th>Immunoglobulin E</th>
<th>Normal</th>
<th>Patient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>14–240 µg/L</td>
<td>310 µg/L</td>
</tr>
<tr>
<td>Latex-specific (RAST method)</td>
<td>&lt;0.3 PRU/mL</td>
<td>2.8 PRU/mL (class 2)</td>
</tr>
</tbody>
</table>
CORRESPONDENCE

shows that the risk group will be extended with the increasing use of latex products.

Nur Baykara, M.D.
Ismail Kati, M.D.
Zuhal Arikan, M.D.
Anesthesiology and Reanimation Clinic
Kartal Training and Research Hospital
Kartal, Turkey
Huseyin Oz, M.D.
Associate Professor
Department of Anesthesiology
Istanbul University
Cerrahpasa Faculty of Medicine
Istanbul, Turkey

References

(Accepted for publication October 30, 1995)

Nasal Intubation and One-Lung Ventilation

To the Editor—The combined endotracheal tube/bronchial blocker Univent tube (Fuji Systems, Tokyo, Japan) offers several advantages over double-lumen endotracheal tubes (DLT) in the areas of aspiration prevention, prolonged intubation without tube exchange, selective blockade of lung segments, and ease of insertion (especially in an emergency, such as massive pulmonary bleeding). It is occasionally necessary to provide one-lung ventilation (OLV) in patients who have abnormal upper airways. In that case, it might be difficult, even impossible, to use a DLT. Recently, we managed a patient who underwent a thoracotomy and who presented a challenge for intubation.

The patient was a 77-yr-old, 95 kg man who presented a rapidly progressive large lesion of the left check that was biopsy-proven as recurrent malignant melanoma. A routine chest x-ray previously showed a left-sided pulmonary nodule. However, because of the aggressive growth of the cheek lesion and impending wound problems, it was decided to proceed first with its excision. One month before the current surgery, the patient underwent a left radical parotidectomy, left submandibular gland excision, right upper neck dissection, left lateral temporal bone resection with complete mastoidectomy, and left pectoralis major flap to cover the defect left by the excision of the tumor. In the postoperative period, he benefited from radiation therapy. He was scheduled for an elective left lower lobectomy.

His medical history was remarkable for hypertension and non-insulin-dependent diabetes mellitus. The preoperative physical examination revealed a distorted and fixed neck and a mouth opening of 5 mm. Because OLV was deemed necessary for the surgery, the different options to achieve this goal were evaluated. The only way to get a reasonably sized tube into the trachea was to perform a nasal intubation. It was felt that a DLT would be too difficult to manipulate. The only solution left was to use a single-lumen tube with a bronchial blocker. The most appropriate tube appeared to be the Univent tube. In the operating room, under light sedation (1 mg intravenous midazolam), a trachial block and topical anesthesia of the nose and upper airway were performed. A Univent tube (7.0) was inserted through the nose and, with the aid of a fiberoptic bronchoscope (FOB), passed through the vocal cords and positioned at 3 cm above the carina. At that time, general anesthesia was induced. The FOB was used again to position the bronchial blocker into the left main bronchus. Surgery started uneventfully. It was easy to collapse the left lung and allow optimal conditions for removal of the left lower lobe.

The Univent tube should be kept in mind when OLV is necessary and nasal intubation is the only possibility.

Y. Gozal, M.D.
W. Lee, M.D.
Department of Anesthesiology, UHS-2
Oregon Health Sciences University
3181 SW Sam Jackson Park Road
Portland, Oregon 97201-3098

Reference

(Accepted for publication October 31, 1995)