References


Intraoperative Anaphylactic Shock from Bacitracin Nasal Packing after Septorhinoplasty

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ANAPHYLAXIS is a life-threatening immunologically mediated reaction related to the administration of a substance that causes mast cell degranulation. We report a case of life-threatening anaphylaxis after topical application of bacitracin to the nasal mucosa at the conclusion of an anesthetic.

Case Report

A 48-yr-old man with a history of traumatic nasal deformity and nasal obstruction was scheduled to undergo septorhinoplasty as a same-day admission. He had a history of hypertension but had not taken his prescribed dose of hydrochlorothiazide the morning of surgery. He was otherwise healthy, reported no allergies, and weighed 98 kg.

In the operating room, electrocardiogram, pulse oximetry, and noninvasive blood pressure monitoring were established. Midazolam 2 mg was administered intravenously, and induction proceeded with propofol 200 mg, sufentanil 25 μg, rocuronium 4 mg, and succinylcholine 130 mg. Anesthesia was maintained with isoflurane and nitrous oxide.

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Key words: Allergy; antibiotic; prophylaxis; topical.

Anesthesiology, V 91, No 5, Nov 1999
within seconds of insertion of the nasal packing, oxygen saturation within the finger of a latex glove coated with bacitracin ointment. No foreign graft material was used intraoperatively. During controlled ventilation. Cefazolin 1 g was administered intravenously after induction without ill effect. The septorhinoplasty proceeded uneventfully over the next 85 min. No change in ventilator pressure was noted, and auscultation revealed equal bilateral breath sounds with no adventitia. Nitrous oxide was stopped, and 100% oxygen was administered. The arterial oxygen saturation increased to 97%. Blood pressure and heart rate were unchanged. The left nostril was then packed, and blood pressure could not be obtained by the noninvasive monitoring. The right nostril was packed, and the arterial oxygen saturation again decreased, this time to 91%. The septorhinoplasty proceeded uneventfully over the next 85 min.

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cin is the seventh most common chemical that causes contact dermatitis and suggest that a fivefold increase in the odds of observing a positive result for a patch test to bacitracin has occurred over the 1985–1994 period.\textsuperscript{12} A randomized controlled trial comparing white petroleum ointment to bacitracin ointment after dermatologic surgery found that white petroleum was a safe effective wound-care ointment that possesses minimal potential for selection of resistant organisms, no risk of local or systemic allergic reactions, and impressively lower costs.\textsuperscript{13}

There have been suggestions that patients previously exposed to bacitracin wound irrigation should not be re-exposed.\textsuperscript{5,14} Given the current widespread use of bacitracin in operating rooms, this is difficult to accomplish because information about previous exposure is often not available. Because both systemic and local allergic reactions to bacitracin have been documented, physicians using bacitracin should consider the risk/benefit ratio of routine use. Physicians should definitely consider alternatives if bacitracin is to be applied to wounds, mucosal surfaces, or abnormal skin; all reported cases of cardiac arrest associated with bacitracin allergy have occurred in these circumstances. In addition to a reduction in allergic reactions, Smack \textit{et al.}\textsuperscript{13} speculated that substituting white petroleum jelly for bacitracin in postsurgical wound care could result in cost savings in the order of hundreds of millions of dollars annually in the United States.

In summary, we report a case of severe anaphylaxis during emergence from anesthesia triggered by the application of bacitracin to the nasal mucosa. Although this is an uncommon reaction, we suggest that the widespread use of bacitracin ointment should be reconsidered and appropriate clinical trials performed to see if this substance is beneficial.

\textbf{References}