
Letters

FIXED DRUG ERUPTION CAUSED BY AMOXICILLIN-CLAVULANIC

Fixed drug eruptions caused by penicillin derivatives are infrequent, and very few cases have been reported.¹⁻⁴ Fixed drug eruption is characterized by sudden onset of round and/or oval, edematous, dusky-red macules on the skin and/or mucous membranes, accompanied by burning and/or itching. In addition, some cases may show the formation of vesicles, bullae, and denuded skin.⁵

A 26-year-old woman with Down syndrome was given Augmentin (GlaxoSmithKline SA, Madrid, Spain), 500 mg 3 times a day, for treatment of an infection. Four hours after ingestion of the fourth tablet, she had itching and erythema on her palms and plantae. Two days later, the patient presented with denuded skin of her palms. Finally, the patient's symptoms cleared in 1 week with corticosteroid treatment. She had previously tolerated this antibiotic.

Prick and intradermal test results with benzylpenicilloyl polylysine as the major determinant at a concentration of 0.04 mg/mL and minor determinant mixture at 0.5 mg/mL were negative. Both major and minor determinants were purchased from Diater SA (Madrid, Spain). Skin test results with benzylpenicillin, 10,000 UI/mL (Normon SA, Madrid, Spain); amoxicillin, 20 mg/mL and 25 mg/mL (GlaxoSmithKline SA, Madrid, Spain); ampicillin, 20 mg/mL (Normon SA); cefuroxime, 20 mg/mL (GlaxoSmithKline SA); and ceftazidime, 20 mg/mL (Combino Pharm SL, Barcelona, Spain) were all negative. Specific IgE antibodies to penicillin V, penicillin G, amoxicillin, and ampicillin (CAP-FEIA; Phadia, Uppsala, Sweden) were negative. Patch tests were performed on the patient's upper back skin and palms with penicillin, amoxicillin, and amoxicillin-clavulanic, at a concentration of 10% in petroleum jelly. No reactions were observed at 48 and 96 hours.

After the patient gave informed consent, we performed a single-blinded oral challenge with amoxicillin-clavulanic, with a positive result. Four hours after being given 825 mg of amoxicillin-clavulanic, the patient had erythema on the palms and plantae; 24 hours later, she had denuded skin of her palms.

To investigate possible cross-reactivity among other β -lactams, we performed an oral challenge with cefuroxime and ceftazidime that produced negative results. Therefore, we recommended the use of cefuroxime and ceftazidime for future treatments that would require β -lactam antibiotics.

Penicillins are the drugs most frequently implicated in immunologic adverse reactions, such as IgE-mediated immediate reactions, maculopapular exanthemas, erythema multiforme, and fixed drug eruptions.^{2,4}

Patch testing is a simple and safe method to identify certain causative agents of fixed drug eruptions, but it cannot be relied on if results are negative.¹ In our case, we performed the patch test on normal and previously affected skin with amoxicillin, amoxicillin-clavulanic, and ampicillin, all of them in 10% petroleum jelly, with negative results. In the literature, Saenz de San Pedro Morera et al¹ described a fixed drug eruption to amoxicillin with a positive patch test result on the back and on previously involved skin.

Jiménez et al² described a case of fixed drug eruption caused by amoxicillin with a negative epicutaneous open test result (10% in petroleum jelly), performed on the patient's upper back and palms, with penicillin, amoxicillin, and amoxicillin-clavulanic. The diagnosis was confirmed by oral challenge.

On the other hand, Arias et al⁴ described a woman with a selective fixed drug eruption to amoxicillin with no reaction to other β -lactam drugs. Patch test results from normal and residual pigmented skin were also negative.

We report a fixed drug eruption to amoxicillin-clavulanic that was confirmed by oral challenge. To our knowledge, this is the first case published with this drug.

LETICIA SÁNCHEZ-MORILLAS, MD*
JOSE LAGUNA-MARTÍNEZ, MD*
MAR REAÑO-MARTOS, MD*
PRADO GÓMEZ-TEMBLEQUE ÚBEDA, MD*
ESTRELLA ROJO-ANDRÉS, MD*
*Allergology Department
Hospital Central de la Cruz Roja
Madrid, Spain
lsanchezmorillas@hotmail.com

1. Saenz de San Pedro Morera B, Enriquez JQ, López JF. Fixed drug eruptions due to beta lactams and other chemically unrelated antibiotics. *Contact Dermatitis*. 1999; 40:220-221.
2. Jiménez I, Antón E, Picans I, Sánchez I, Quiñones MD, Jerez J. Fixed drug eruption from amoxicillin. *Allergol Immunopathol*. 1997;25:247-248.
3. Gil García JF, Llerida Arias MT, del Pozo Hernando LJ, García-Pando AC. Fixed drug eruption due to amoxicillin. *Med Clin*. 1994;102:438.
4. Arias J, Fernández-Rivas M, Panadero P. Selective fixed drug eruption to amoxicillin. *Clin Exp Dermatol*. 1995;20:339-340.
5. Sehgal VN, Srivastava G. Fixed drug eruption: changing scenario of incriminating drugs. *Int J Dermatol*. 2006;45:897-908.

RHINOSCLEROMA IN A YOUNG ADULT WITH CHRONIC RHINITIS AND DYSPNEA

Rhinoscleroma is an infectious cause of nasal and subglottic obstruction not commonly seen in nonendemic areas. The organism *Klebsiella rhinoscleromatis* is endemic in Central America and has an affinity for the mucosa of the upper respiratory tract. The disease most commonly affects the nasal mucosa, with chronic rhinitis being a common presentation. Delayed diagnosis in nonendemic areas allows progression to a destructive fibrotic phase.

We describe a 20-year-old Hispanic woman, a lifelong non-smoker, who had a 1-year history of progressive shortness of breath. Dyspnea began shortly after emigration from southern Mexico and was preceded by several years of chronic rhinitis, which did not respond to intranasal corticosteroid therapy. Her symptoms progressed during the previous year to exertional dyspnea and stridor. Physical examination revealed thickened erythematous nasal mucosa and stridorous breathing. Flow volume loop showed flattening of inspiratory and expiratory limbs, suggestive of fixed airway obstruction. Computed tomography of the head and neck revealed obstruction of the nasal passages and circumferential thickening

Disclosures: Authors have nothing to disclose.

Disclosures: Authors have nothing to disclose.

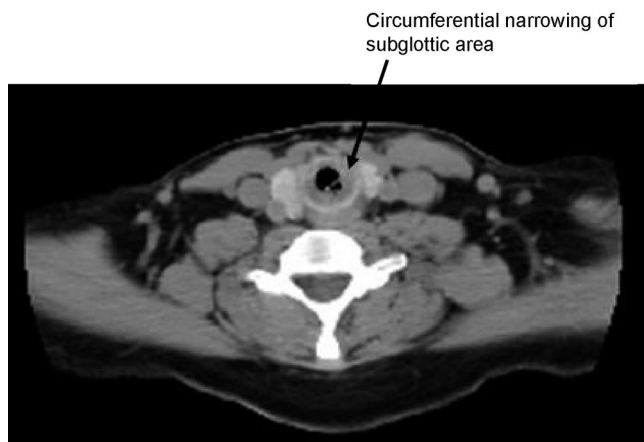


Figure 1. Computed tomogram of the head and neck showing obstruction of the nasal passages and circumferential thickening with narrowing of the subglottic area to 3 cm.

with narrowing of the subglottic area to 3 cm (Fig 1). Flexible bronchoscopy revealed thickened, erythematous mucosa from the posterior pharynx to the subglottic area (Fig 2). Rigid bronchoscopy with dilation was performed with debridement and biopsy of the subglottic tissue. A subglottic tissue biopsy specimen showed areas of chronic and focally acute inflammation and no granulomas, and cultures yielded *K rhinoscleromatis*. Oral ciprofloxacin, 500 mg twice daily, was initiated with symptomatic improvement after 8 weeks of therapy.

K rhinoscleromatis is the causative organism of rhinoscleroma, which is endemic in Central and South America, Africa, Eastern Europe, the Middle East, and China.¹ The disease is not highly contagious and requires prolonged contact. Low socioeconomic status, overcrowding, and malnutrition are believed to be important epidemiologic factors in its transmission.² Deficient cellular immunity has been demonstrated in those with rhinoscleroma, with an increase in the ratio of CD8⁺/CD4⁺ lymphocytes. In this regard, the disease has parallels with leprosy, which is transmitted in a similar manner and also involves decreased cellular immunity.³ The organisms proliferate in host macrophages, with areas of active infection displaying a granulomatous reaction.³

The disease progresses through 3 characteristic clinical stages: (1) the catarrhal and atrophic stage, characterized by purulent nasal discharge; (2) granulomatous stage, in which neutrophils and histiocytes can be seen in the subepithelium; and (3) a final sclerotic stage, characterized by tissue deformity and destruction.⁴ Our patient was in the early stages of the disease based on biopsy results.

Rhinoscleroma most commonly affects the nasal mucosa, with relative sparing of the sinuses. The disease may also involve the soft and hard palate and can ultimately spread to the respiratory system. In the United States, rhinoscleroma is seen among immigrants from endemic areas such as southern Mexico and Central America. This case highlights the need for clinical awareness because delay in the diagnosis in

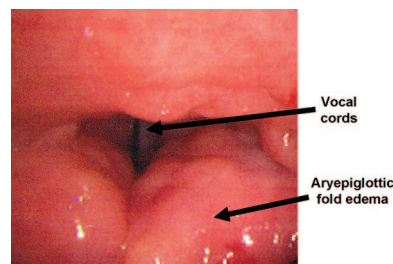


Figure 2. Flexible bronchoscopy image showing thickened, erythematous mucosa from the level of the posterior pharynx to the subglottic area.

nonendemic areas such as the United States can lead to life-threatening airway compromise in those with laryngotracheal involvement.⁵ Rhinoscleroma is best diagnosed via biopsy of affected mucosa because the organism is not found in nasal secretions. Demonstration of the organism in biopsy material or subsequent culture is diagnostic.⁵ Ciprofloxacin has been demonstrated to have the greatest in vitro activity against *K rhinoscleromatis*.⁶ Although the length of therapy is not known, a 12-week course of the antibiotic has been shown to be effective.⁷ However, treatment of advanced disease with airway compromise is often supportive and may require surgical intervention.

Rhinoscleroma is an important cause of nasal and pharyngeal obstruction. A high index of suspicion should be maintained in individuals who have emigrated from endemic areas with chronic rhinitis that does not respond to usual treatment. Because the number of immigrants from endemic areas has increased in the United States, this disease may be increasing. A high index of suspicion and early prolonged treatment are required to prevent progression to the fibrotic stage.

PRADEEP RAMACHANDRAN, MD*

CRAIG PIQUETTE, MD*

JILL A. POOLE, MD*

*University of Nebraska Medical Center
Omaha, Nebraska

japoole@unmc.edu

1. Sedano HO, Carlos R, Koutlas IG. Respiratory scleroma: a clinicopathologic and ultrastructural study. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod.* 1996; 81:665–671.
2. Batsakis JG, El-Naggar AK. Rhinoscleroma and rhinosporidiosis. *Ann Otol Rhinol Laryngol.* 1992;101:879–882.
3. Berron P, Berron R, Ortiz-Ortiz L. Alteration in the T-lymphocyte subpopulation in patients with rhinoscleroma. *J Clin Microbiol.* 198;26:1031–1033.
4. Kim NR, Han J, Kwon TY. Nasal Rhinoscleroma in a nonendemic area. *J Korean Med Sci.* 2003;18:455–458.
5. Yigla M, Ben-Izhak O, Oren I, Hashman N, Lejbkowitz F. Laryngotracheobronchial involvement in a patient with nonendemic rhinoscleroma. *Chest.* 2000; 117:1795–1797.
6. Perkins BA, Hammill RJ, Musher DM, O'Hara C. In vitro activities of streptomycin and 11 oral antimicrobial agents against clinical isolates of *Klebsiella rhinoscleromatis*. *Antimicrob Agents Chemother.* 1992;36: 1785–1787.
7. Badia L, Lund V. A case of rhinoscleroma treated with ciprofloxacin. *J Laryngol Otol.* 2001;115:220–222.