

SHORT COMMUNICATION

Acute Localized Exanthematous Pustulosis on Inguinal Area Secondary to Piperacillin/tazobactam

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Accepted Mar 12, 2013; Epub ahead of print June 24, 2013

Acute generalized exanthematous pustulosis (AGEP) is a rare but well-known cutaneous reaction pattern mostly caused by drugs, i.e. aminopenicillins. Fever and erythema, followed by numerous tiny non-follicular pustules that usually appear within days after administering the medication, are characteristic. The reaction is self-limiting once the causative drug is withdrawn. The pathomechanisms of AGEP remain uncertain, but there is some evidence of underlying T-cell mediated process (1).

CASE REPORT

After informed consent, we report here a 44-year-old man who was hospitalized due to upper gastric pain. He had previously been diagnosed with cholelithiasis, and thus endoscopic retrograde cholangiopancreatography (ERC) was performed. Shortly after, post-ERC pancreatitis with highly elevated C-reactive protein levels appeared and intravenous piperacillin/tazobactam was administered. On the following day, a rash developed on his thighs. On dermatological examination, he had annular erythematous lesions with dozens of tiny non-follicular pustules on his upper thighs (Fig. 1A). His skin was otherwise healthy and he had no lesions on the oral mucosa. A biopsy was taken and topical treatment was started with betamethasone. Due to suspected drug reaction piperacillin/tazobactam was replaced with intravenous meropenem. Within 2 days urticarial erythema appeared on his trunk, and meropenem was changed to ciprofloxacin and clindamycin. However, the exanthematous pustulosis on his inguinal area did not spread any further and was resolved by desquamation within a week. The 4-mm-wide biopsy from the skin of the upper thigh showed a slightly thickened, spongiotic, parakeratotic epidermis and small intraepidermal, partly subcorneal pustules with a few neutrophilic granulocytes (Fig. 1B). Spongiformic features within lesions were inconspicuous. The upper dermis was highly edematous and contained scattered lymphocytes, neutrophils and eosinophils. The histological features were considered to be consistent with AGEP. Since clinical and histopathological features matched the diagnostic criteria of AGEP (2) a diagnosis of a rare localized type of acute exanthematous pustulosis was made.

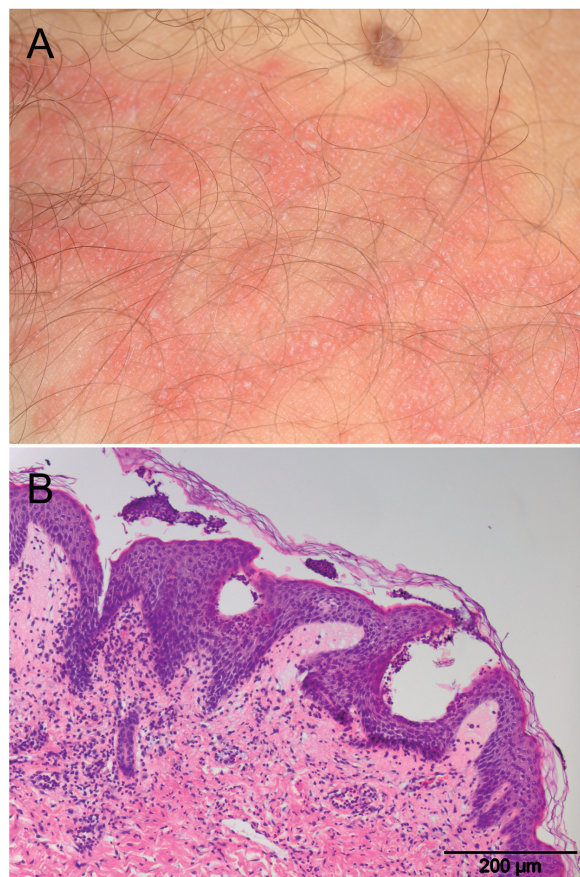


Fig. 1. (A) Erythematous lesion with multiple tiny pustules on the patient's thigh. (B) Histopathology of a lesion exhibiting small intraepidermal, partly subcorneal pustules (H&E; $\times 10$).

DISCUSSION

Acute localized exanthematous pustulosis (ALEP), a localized variant of AGEP, occurs only rarely. The term ALEP was first introduced by Prange et al. (3), who described a patient with symptoms of AGEP localized only on her face. However, localized pustular eruptions caused by amoxicillin had been reported previously (4, 5). In ALEP, lesions resemble those of AGEP, but are typically located on the face (5–9). Only one case with pustular lesions on the neck following administration of paracetamol (10), and another on the chest after amoxicillin (4) have been described. In most cases, amoxicillin is the causative drug; other antibiotics (6, 8) and ibuprofen (11) are thus also implicated.

Since ALEP is a non-follicular pustular skin disease it is readily distinguished from a variety of dermatoses with follicular pustules. A skin biopsy may be helpful when differentiating it from pustular psoriasis. Positive patch test with suspected drug can support the diagnosis; however, it remains negative in approximately half of the patients. (1). As in our case, ALEP has a self-limiting, favourable prognosis soon after the causative medication is discontinued. Supportive topical treatments to avoid secondary infection are recommended, but the usefulness of topical or systemic corticosteroids is not clearly established (1).

Piperacillin/tazobactam has been reported to cause AGEF when used to treat pneumonia and cellulitis in geriatric patients (12, 13). To the best of our knowledge, there are no previous reports of ALEP associated with piperacillin/tazobactam, and only 2 reports of ALEP localized in areas other than the facial area.

The authors declare no conflicts of interest.

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