Acute generalised exanthematous pustulosis due to amoxicillin-clavulanate

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DESCRIPTION

An 85-year-old Caucasian woman was admitted to hospital due to acute exacerbation of congestive heart failure, acute-on-chronic kidney disease and cystitis. The patient had stage IV chronic kidney disease, heart failure, permanent atrial fibrillation, chronic obstructive pulmonary disease, arterial hypertension and type 2 diabetes mellitus. Urine culture revealed *Escherichia coli* sensitive to multiple antibiotics and treatment was initiated with amoxicillin-clavulanate. The patient presented a severe cutaneous reaction with disseminated oedema, erythema and sudden onset of generalised non-follicular aseptic pustules. Cutaneous lesions were localised at anterior and posterior thoracic regions and also at intertriginous areas of the bilateral inferior limbs (figures 1 and 2). A skin biopsy revealed subcorneal pustule, negative Periodic acid–Schiff colouration for microorganisms and superficial dermal mixed inflammatory cell infiltrate with plasmacytes, eosinophils and neutrophils (figure 3). Acute generalised exanthematous pustulosis (AGEP) was established. Amoxicillin-clavulanate was changed to ciprofloxacin and systemic corticoid was initiated with residual skin shedding and progressive resolution of

Figure 2 Cutaneous reaction in intertriginous areas of the bilateral inferior limbs with disseminated oedema, erythema, generalised non-follicular aseptic pustules and skin shedding.

Figure 1 Posterior thoracic exuberant cutaneous reaction with disseminated oedema, erythema, generalised non-follicular aseptic pustules and skin shedding.

Figure 3 Skin biopsy (H&E stain, ×100). Subcorneal pustule above dermal mixed inflammatory infiltrate with lymphocytes and eosinophils.

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Learning points

- ▶ Acute generalised exanthematous pustulosis (AGEP) is an adverse drug reaction most commonly associated with pristinamycin, aminopenicillins, macrolides, quinolones, tetracyclines, hydroxychloroquine, sulfonamides, terbinafine, diltiazem, ketoconazole, fluconazole, allopurinol and paracetamol. AGEP cases associated with acute viral infections, mercury and spider bites have also been reported.³
- ▶ A well-timed skin biopsy is of the utmost importance as it is the only way to confirm AGEP diagnosis, allowing proper treatment. AGEP differential diagnosis includes generalised acute pustular psoriasis, Stevens-Johnson syndrome, toxic epidermal necrolysis, subcorneal pustular dermatosis, bullous impetigo and drug reaction with eosinophilia and systemic symptoms.²
- ▶ Discontinuation of the causative agent constitutes the mainstay of treatment and resolution of the cutaneous lesions typically occurs within a few days, with desquamation over the affected area. During the pustular phase, antiseptic solutions can help prevent infection.²

presentation includes acute onset of fever and pustulosis with leucocytosis, typically 48 h after ingesting the causative medication. Severe cases can present with mucous membrane and systemic organ involvement. The main differential diagnosis is pustular psoriasis. Treatment focuses on removal of the causative drug, supportive care, infection prevention and steroid therapy.^{1 2}

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