

Metamizole Associated Acute Generalized Exanthematous Pustulosis

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Abstract

Observation: Acute generalized exanthematous pustulosis is a rare and severe cutaneous reaction generally triggered by drug intake. Metamizole is a frequently used drug as an analgesic and antipyretic all over the world. Although it's widely usage there are only a few report about metamizole associated acute generalized exanthematous pustulosis. Herein we present a 49-year-old man with AGEP due to metamizol.

Introduction

Acute generalized exanthematous pustulosis (AGEP) is a rare cutaneous reaction characterized by development of acute, multiple non follicular pustules on erythematous skin [1]. Although this condition is often thought to be due to drugs, other factors may play role such as viral infections, spider bites and herbal medications [2, 3, 4]. Terbinafine, calcium channel blockers, anticonvulsants, antimalarials can trigger this reaction but antibiotics especially aminopenicillins and macrolids are the most common causative agents [5]. We report a case of AGEP that occurred after receiving metamizole.

Case Report

A 49-year-old man was referred to our hospital with two days history of generalized erythematous eruption accompanied by fever. He indicated that the lesions developed one day after taking oral metamizole for headache. The patient reported two

previous minor episodes of rash after intake of metamizole. He had no personal history of psoriasis. Dermatologic examination revealed generalized erythema with numerous discrete and coalescing small non-follicular pustules dominantly localized on trunk and lower extremities (Figures 1 and 2). The confluence of the pustules imitated positive Nikolsky's sign. The mucosa was not affected.



Figure 1. Generalized erythema with discrete and coalescing small non-follicular pustules



Figure 2. Close up view of coalescing pustules

Laboratory investigations showed marked leukocytosis (31×10^9 /L), neutrophilia ($27,7 \times 10^9$), raised levels of erythrocyte sedimentation rate (56 mm/h) and C-reactive protein (129 mg/ml). Eosinophile count in peripheral blood, liver and renal function tests were within normal limits. Punch biopsy was performed from lesions and histopathological examination showed spongioform subcorneal pustules, papillary edema and exocytosis of some eosinophils (**Figure 3**). Fever resolved within 48 hours. The pustular lesions and erythema disappeared within four days by desquamation.

Discussion

The clinical presentation of AGEP is acute onset of pustular rash localized on erythematous area. AGEP's diagnostic criteria include; a) sudden onset of numerous non-follicular pustules on widespread erythema, b) typical histopathologic changes, c) fever above 38°C , d) neutrophilia, e) acute evolution with spontaneous resolution in 15 days [6].

Histologically, AGEP is characterized by subcorneal and/or intraepidermal pustules, necrotic keratinocytes, papillary edema and perivascular eosinophilic/neutrophilic infiltrate [5].

Metamizole or dipyron is a non-steroidal anti-inflammatory drug (NSAID) that is widely used in many countries as an analgesic and antipyretic. Some adverse effects of metamizole are agranulocytosis, anemia, acute renal failure, severe thrombocytopenia and DRESS syndrome [7, 8, 9].

Here we report a case of AGEP due to metamizole. Skin patch test can be used for confirming culprit drug but our patient refused

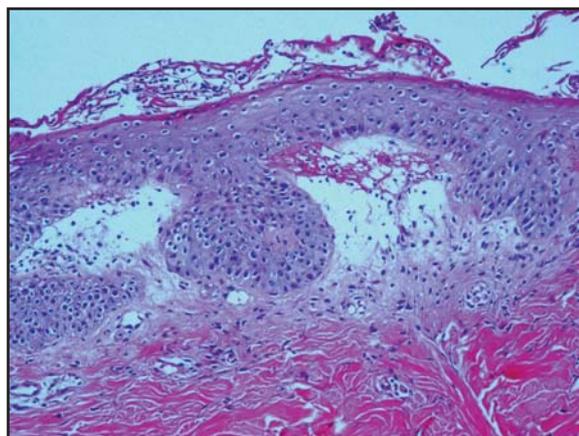


Figure 3. Intracorneal neutrophilic infiltration, papillary edema, acanthosis (H&E, x40)

patch test. AGEP has been reported with other NSAIDs; phenylbutazone, naproxen, and acetylsalicylic acid [10] but there is a few report due to metamizole in literature [11, 12, 13]. Physicians should be aware of this type of reaction which can be occurred after this drug administration and metamizole must be considered among the potential triggers of AGEP.

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