

Beta lactams anaphylaxis in an emergency department: epidemiology, clinical features and management

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Background:

Anaphylaxis is defined as a serious allergic reaction that is rapid in onset and may cause death in otherwise healthy individuals. Antibiotic anaphylaxis, especially for beta lactams, is considered to be one of the leading causes of anaphylaxis treated in emergency departments (ED) and its prevalence is increasing.

Objective:

Describe the epidemiology, clinical features, management and outcome of patients with beta lactams anaphylaxis.

Patients & Methods:

prospective, monocentric study over six years. **Inclusion criteria**: patients aged over 14 years presenting consecutively to ED with the diagnosis of anaphylaxis.

Collection of epidemiological, clinical and therapeutic parameters.

Results:

Inclusion of 694 patients presented in the ED with diagnostic of anaphylaxis. Antibiotics anaphylaxis was found in 211 (30%) patients, 169 (80%) of whom were beta-lactams. Mean age was 40±15 years. Sex-ratio was 0.74. A history of anaphylaxis was reported in 37 % of cases.

The most incriminated beta-lactams are represented in figure (1).

Clinical features are represented in table (1). Anaphylaxis was moderate grade in 99 patients (58%).

Therapeutic features are represented in table (2).

All of patients were discharged directly from ED after a mean period of observation as 4.5 hours except 3 who have been admitted at the ED.

Recurrence reactions were reported in six patients (3.5%). There was no death cases registered. Patients were all referred to the allergy clinic.

Table 1.Clinical features

Symptoms	N	%
Cutaneous feautures	204	97
Cardiovascular features	78	37
Respiratory features	55	26
Gastrointestinal features	48	23
Neurologic features	8	4
Hypotension	64	40
Anaphylactic shock	8	4

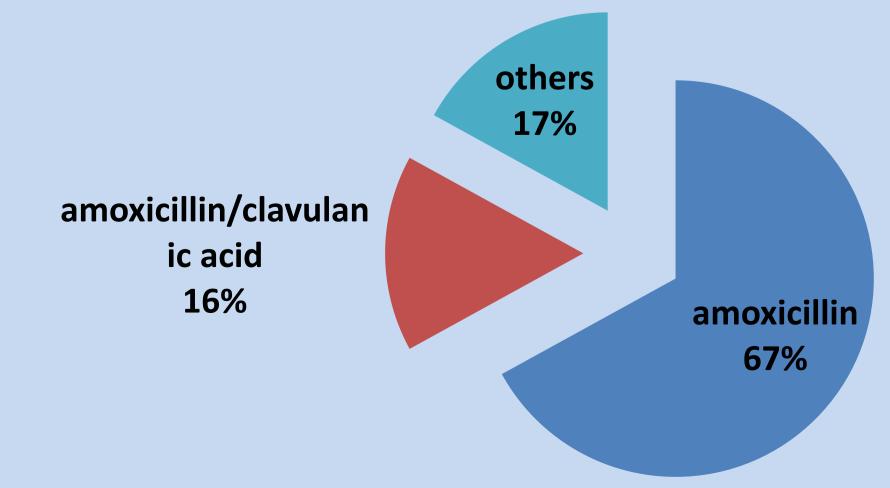


Figure 1: The most incriminated beta-lactams

Table 2. Therapeutic features

Treatment	N	%
Adrenaline IV	63	30
Adrenaline aerosol	52	25
Fluid resuscitation	183	87
H1 antagonists	97	57
Corticosteroids	198	94

Discussion:

Patients with anaphylaxis require immediate assessment using an Airway, Breathing, Circulation, Disability and Exposure approach. Problems should be treated as they are found and a call put out for emergency services. Deaths result from upper airway, lower respiratory, and/or cardiovascular compromise so emergency management must focus on these manifestations.

Our study provides population-based estimate of the incidence of serious allergic reactions after exposure to beta lactams antibiotics. These reflect the incidence of allergic reactions occurring in an ED.

Conclusion:

Identifying the characteristics of beta lactams anaphylaxis presentation to ED and its risk factors helps to improve the diagnosis of this medical emergency and suggest the necessity of a standardized guideline for anaphylaxis management in ED.