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Editorial

Anaphylaxis, its Relevance in the Emergency Department

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Abbreviation

ED: Emergency Department.

From a conceptual point of view, anaphylaxis is defined as a systemic disease, potentially serious and fatal, caused by the sudden and massive release of autacoid mediators, cytokines and other pro-inflammatory agents, generated by mast cells and basophils and triggered by immunological causes (usually mediated by IgE-allergen interactions) and non-immunological or unknown causes. Among the best known causes are food (47%), medications, hymenoptera venoms (13%), latex or physical exercise [1].

Clinically, this concept is more difficult to define, accepting the concept wielded by the NIAID/ FAAN in 2006 [2], accepting it if it meets 1 of the following:

Acute disease process (minutes to several hours) with the participation of the skin, mucous tissue, or both and at least one of the following:

- Respiratory compromise (i.e., dyspnea, wheezing - bronchospasm, stridor, reduced fixed expiratory flow, hypoxemia).
- Hypotension or associated symptoms of organic dysfunction (i.e., collapse, syncope, incontinence).

Two or more of the following symptoms after exposure to a probable allergen (minutes to several hours):

- The involvement of cutaneous and mucous tissue.
- Respiratory Commitment
- Hypotension or symptoms associated with organic dysfunction.
- Persistent gastrointestinal symptoms.

Hypotension after exposure to a known allergen (minutes to several hours):

- Infants and children: Low BP or more than 30% decrease in systolic BP.
- Adults: Systolic BP less than 90 mm Hg or decrease greater than 30% compared to baseline.

In Spain, anaphylaxis accounts for 0.4% of all hospital emergencies, with recurrences in one third of patients [3]. Due to this, a diagnosis as accurate as possible as well as a recommendation sheet to avoid recurrences becomes especially relevant in the discharge report. In order to favor an accurate diagnosis, the seriation of serum tryptase at the beginning of the symptoms and once the treatment is started (after 1-2 hours) [4,5].

One of the causes of the bad identification of relapses may be related to the diagnosis in the Emergency Department (ED). Up to 50% of cases it has been observed that this term is replaced by some more ambiguous, such as "allergic reaction" or "allergy" [3,6].

Likewise, the treatment of choice is adrenaline, although a use of less than 50% is observed in the ED [3]. Administration should be intramuscularly since its dose is more constant than subcutaneously. In addition, high use of this drug is observed intravenously (only recommended for severe cases), with significant risks such as acute myocardial infarction, severe arrhythmias, acute ischemia or even death [7].

Finally, observation in the ED is also a controversial point. There is a risk of recurrence in the first hours (8 hours), so observation between 6 - 8 hours is recommended for patients with respiratory involvement and 12 - 24 hours with hypotension [4]. In relation to discharge treatment, oral antihistamines and corticosteroids are usually recommended, although adrenaline may be recommended given the risk of recurrence (1/3 of the cases, especially in anaphylaxis by hymenoptera, food or exercise and in young patients [8] This is uncommon in countries such as Spain, although it can be seen in up to 25% of cases in countries such as the United States [9], recommendations on possible triggers and how to prevent them are also important, although only observed in the 40% of cases [10] Finally, all patients should be referred to the Allergology consultations for study.

For all this, the role of the emergency physician can be vital in the management of anaphylaxis since, although it is an uncommon pathology. The management of the same must be comprehensive, with a correct history to identify the possible cause and correct treatment. In addition, given the recurrences, it is necessary to inform about possible triggers and how to prevent it. All this will rely on referral for study to external Allergology consultations for diagnostic confirmation.

Conflict of Interest

The Authors declare that do not have any conflict of interest.

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