

A Brief Introduction

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What is an emergency? According to the *Oxford English Dictionary* (1), an emergency is "[t]he arising, sudden or unexpected occurrence (of a state of things, an event, etc.) A juncture that arises or 'turns up'; especially a state of things arising, and urgently demanding immediate action." *Taber's Cyclopedic Medical Dictionary* (2) defines emergency as "[a]n unexpected serious occurrence that may cause a great number of injuries. They usually require immediate attention." Taber does not include anaphylaxis, asthma, or other allergic emergencies in its Appendix listing medical emergencies. In contrast, *The Merck Manual* (3) does include both anaphylaxis and asthma in its list of emergencies. Most textbooks on allergic diseases would also consider some other serious clinical problems, for example, acute generalized urticaria and/or angioedema, as being emergencies, and so would most of us.

That allergic emergencies of all kinds merit our attention is evident, and this is confirmed by the continued publication of papers on the subject. For example, there were more than 250 Medline citations on anaphylaxis alone over a recent 12-month period, and *The Journal of Allergy and Clinical Immunology* recently published a supplement devoted to the diagnosis and management of that emergency alone (4).

What is so urgent about an allergic emergency is that patients sometimes die from these conditions. Even if we do not see such events every day, it is essential that we be prepared to recognize the patient who is in need of prompt action on our part, that we be able to provide effective treatment, and be capable of identifying the factors that were responsible for the event, so that after successful treatment, appropriate measures can be taken to prevent further life-threatening episodes.

This brings me to the point of the present collection of articles. Since the distribution of the type and the causes of allergic emergencies seen in a physician's office, especially in an allergist's office (a reaction

to immunotherapy or a patient seen postanaphylaxis for diagnosis, for example) is likely to be quite different from that seen in an operating room (anaphylactic shock owing to a muscle relaxant drug, for example) or in an Emergency Department—*l'Urgence* in France (a patient with severe acute asthma, for example) or in a dermatology service (a patient with a toxic drug reaction, for example), it seemed to me that it would be useful to put together a series of articles from a group of clinicians with experience in several different fields who could discuss these serious problems from their different points of view. Fortunately, I had no trouble in getting these experts to agree to participate in this assignment.

How will the reader be able to use all this information? Some of it is theoretical, but even though this issue of *Clinical Reviews in Allergy and Immunology* is not to be regarded as a textbook, there is also much very practical advice on how to deal with patients in acute distress. The reader will also find a very extensive and up-to-date list of references at the end of each chapter.

Let me give you an idea of what you will find herein: Ring and Behrendt define anaphylactic, anaphylactoid, and pseudoallergic reactions and their mechanisms, and provide guidelines on how to manage them clinically. Greenberger tells us what the physician may encounter in his or her office in the way of a broad range of allergic emergencies, and how the physician and the office personnel should be prepared to deal with them. Exercise-induced anaphylaxis (EIA) is a special problem that we may be called on to diagnose and treat, and Castells and colleagues, who are real experts on this subject, give us the answers. Another special problem encountered in the physician's office is idiopathic anaphylaxis, and it is covered succinctly by Roy Patterson, the "father" of this subject.

Emergency Departments are frequently at the "front line" in the attack on allergic emergencies. We physicians are then the backup forces, seeing the patients for follow-up diagnosis and management. Staikowsky and his colleagues, emergency medicine specialists, tell us how they manage patients with systemic allergic reactions up there on the "front line." They recognize the importance of referral of these patients to an allergist, a recommendation that is unfortunately not always carried out. Severe acute asthma is a major allergic emergency that most of us have seen or will encounter one day in our offices, on the wards, in an Emergency Room, or just about anywhere. Salmeron and colleagues, allergist-internists with extensive experience in treating patients with life-threatening asthma, cover this subject from A to Z.

There are some special places where allergic emergencies occur, and even if we are not often present when they do occur, we are frequently

called on to make a diagnosis after the fact. One of these areas is the operating room, where reactions occurring during the administration of a general anesthetic are, unfortunately, not rare. Vervloet and his colleagues, the specialists on this subject, discuss all the anesthesia-related substances and a number of other materials, including latex of course, that cause anaphylaxis in the operating room. The Radiology Department is another area where anaphylactic and especially anaphylactoid reactions are rather frequent. Seigle and Lieberman give us the basic facts about the chemistry of radiographic contrast agents, the scope of the problem, the pathophysiology of these reactions, and tell us how best to deal with the patient at risk.

Life-threatening emergencies that we have occasion to deal with occur in two other fields that overlap with allergy-clinical immunology. One is dermatology, and here it is serious cutaneous drug-related reactions that are of concern. Wolkenstein and Revuz cover the Stevens-Johnson syndrome and toxic epidermal necrolysis, emergencies that must be promptly recognized, but fortunately are rare, except perhaps in HIV-infected patients. They also cover drug rash with eosinophilia and systemic symptoms (DRESS), vasculitis, serum sickness, and angioedema, immunologically mediated reactions that should be of interest to us. Then Laurent and Guinnepain cover C1 inhibitor deficiency, a genetic disorder that can lead to attacks of angioedema and life-threatening acute edema of the glottis.

Clinical Reviews in Allergy (nowadays and Immunology) last issued a volume on allergic emergencies more than 10 years ago. There have been many significant advances in our understanding of these conditions and in their management since that time. Today, we must admit that there is more to know about this subject than how to "give an injection of adrenaline." I thank all the authors for their very excellent contributions and trust that you, the reader, will gain as much as I have from their effort.

References

1. The Compact Edition of the *Oxford English Dictionary* (1971), Oxford University Press, New York, 852.
2. Thomas, C. L. (1981), *Taber's® Cyclopedic Medical Dictionary*, 14th ed., F.A. Davis, Philadelphia, 465.
3. *The Merck Manual of Diagnosis and Therapy* (1982), 14th ed., R. Berkow, Editor-in-Chief, Merck Sharp & Dohme Research Laboratories, Rahway, p. 249.
4. *J. Allergy Clin. Immunol.* (1998), **101**, S465–528.