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Foreword

Advances in anaphylaxis management

Denise Anne Moneret-Vautrin

Anaphylaxis is an acute life-threatening allergic reaction that is now recognized as a global health problem. Observed at all ages, its prevalence is strikingly increasing in the pediatric population. Lethal risk is evaluated at 1–3 persons/million inhabitants, but may be underestimated owing to a lack of diagnosis in fatal cases with rapid onset, and the absence of a specific code in the International Classification of Diseases [101]. **Chapter 1** offers an overall view of this complex phenotype, as well as different currently used classifications. The physiopathology is mainly IgE dependent, rarely involving specific IgGs or nonimmune mechanisms. Numerous mediators affect the cardiovascular and respiratory systems and other target organs (**Chapter 2**). The main concerns are means of diagnosis, prevention and management of emergency. Risk factors for fatalities are detailed in **Chapter 3**, outlining comorbidities and inadequate therapeutic management due to delayed administration of injectable epinephrine. **Chapter 4** informs about the causes, which are sensitization to environmental proteins (foods) and chemical substances (drugs). Idiopathic anaphylaxis has to be kept in mind as a signature of our present lack of knowledge. Certain mediators such as tryptase and platelet-activating factor acetylhydrolase are potential biomarkers for severity that should be investigated in the near future and may be beneficial to guide therapeutic progress (**Chapter 5**). **Chapter 6** deals with biological tests for specific IgEs. The reliability of such tests is thoroughly reviewed with the aim of determining specific IgEs levels that could predict

clinical reactivity. The guidance for treatment of anaphylaxis highlights three main points: intramuscular epinephrine, or intravenous bolus by trained physicians; intravenous fluid challenges; and high-flow oxygen (**Chapter 7**). **Chapter 8** deals with the prevention of food anaphylaxis, including prescription of autoinjectable epinephrine, individualized written emergency action plans and education on avoidance measures. Specific immunotherapy is in the pipeline. **Chapter 9** focuses on Hymenoptera anaphylaxis on account of its specificities: allergens introduced by stings, risk of brain lesions, performance of biology thanks to recombinant allergens, and the outstanding efficiency of venom immunotherapy.

This book on anaphylaxis relies on the recognized competences of European allergists. We hope that it will hold the readers' attention.

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Suggested reading

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