Editorial

Current Status and Advances in Severe Drug Hypersensitivity Reactions

It is my great pleasure to be a guest editor for this special thematic issue of the Current Pharmaceutical Design entitled “Current Status and Advances in Severe Drug Hypersensitivity Reactions” contributed by distinguished authors who are highly experienced and cited in the scientific area of drug hypersensitivity reactions.

1. “PRIMUM NON NOCERE”

The so-called Hippocratic warning “first do no harm” has been an axiom central to the education of medical and graduate students for centuries [1]. In the last decades we have been witnessing a global ever-increasing production and consumption of pharmaceuticals [2]. With the increasing knowledge of the nature and magnitude of adverse reactions to drugs, this maxim remains a potent reminder that every medical and pharmacological decision carries the potential for harm. A physician should always balance the risks of harm and the potential for benefit during drug prescription to his/her patients. In the emerging era of precision medicine, any health care provider should be familiar with the expected and unexpected adverse drug reactions, some of which, may be fatal [3].

Drug hypersensitivity reactions (DHR) are defined as type B adverse drug reactions, among which those with an immunological mechanism are termed drug allergies. They constitute approximately 15% of all adverse drug reactions and affect more than 7% of the general population [4]. Among DHRs severe adverse cutaneous drug reactions (SCAR) such as Stevens-Johnson syndrome, toxic epidermal necrolysis, and drug reaction with eosinophilia and systemic symptoms (DRESS) syndrome, acute generalized exanthematous pustulosis and other phenotypes and danger signs for these reactions are reviewed in detail by a group of authors specialized in Pediatric Allergy and Clinical Immunology from Turkey under the senior authorship of Prof. Dr. Emine Msrlıoğlu [11]. A different and often underdiagnosed/underdiscussed presentation of severe DHRs is drug-induced liver injury (DILI). The criteria used for DILI recognition among SCARS, the drugs most commonly involved in these syndromes as well as the outcome, prognostic factors and the need for a multidisciplinary approach to improve the management of DILI in the context of SCARs is discussed in depth by a very experienced multidisciplinary team including researchers from departments of clinical pharmacology, immunology and gastroenterology/hepatology led by Prof. M. Isabel Lucena, Head of Clinical Pharmacology and Founding Director of Malaga Biomedical Research Institute and Prof. Raúl J. Andrade, the Director of the Service of Gastroenterology and Hepatology of University Hospital of Málaga (Spain) and the Director of the Spanish DILI Registry network (www.spanishdili.uma.es) [12]. Diagnosis of a causative underlying drug hypersensitivity and confirmation or exclusion of the role of incriminated drug(s) by tests is mandatory due to the high morbidity and mortality upon re-exposure with that agent, although the utility of some tests are limited. Relevant to diagnostic testing of SCARs in vivo and in vitro test procedures in the diagnosis of SCARs is discussed in depth by a very experienced multidisciplinary team including researchers from departments of clinical pharmacology, immunology and gastroenterology/hepatology led by Prof. M. Isabel Lucena, Head of Clinical Pharmacology and Founding Director of Malaga Biomedical Research Institute and Prof. Raúl J. Andrade, the Director of the Service of Gastroenterology and Hepatology of University Hospital of Málaga (Spain) and the Director of the Spanish DILI Registry network (www.spanishdili.uma.es) [12]. Diagnosis of a causative underlying drug hypersensitivity and confirmation or exclusion of the role of incriminated drug(s) by tests is mandatory due to the high morbidity and mortality upon re-exposure with that agent, although the utility of some tests are limited. Relevant to diagnostic testing of severe DHRs, Prof. Jean-Christoph Caubet from Pediatric Allergy unit of University Hospitals of Geneva, Switzerland and Dr. Marcel Bergmann from Centro Pediatrico del Mendrisiotto, Switzerland gave updated and detailed information about the test types, predictive values and algorithms of in vivo and in vitro test procedures in the diagnosis of SCARs [13]. Lastly, the current supportive and targeted treatment options and advances in the management of SCARs are discussed systematically by experienced authors from Turkey; Prof. Dr. Aslı Gelinçik from Division of Immunology and Allergy of Istanbul University, Faculty of Medicine, Assoc. Prof. Dr. Özlem Çavkaytar from Pediatric Allergy and Immunology Department of Istanbul Medeniyet University and Prof. Dr. Semanur Kuyucu from Pediatric Allergy and Immunology Department of Mersin University, Faculty of Medicine [14].

1. "PRIMUM NON NOCERE"
I want to express my gratitude to Professor W.A. Banks, the Editor-in-Chief of the Journal, and his team Mr. Kazim Baig and Mr. Aamer M. Khan for their help and support in production of this large-scale work in high standards. I do believe that this issue will provide a valuable contribution to the existing literature and be helpful to many physicians in order to understand, prevent and manage these “iatrogenic” hazardous diseases.

REFERENCES


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