UNIVERSITI TEKNOLOGI MARA

DRUG-INDUCED ANAPHYLAXIS IN MALAYSIA FROM 2010 UNTIL 2014

NORHASMIRA BINTI ABDULLAH

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ABSTRACT

Background: Anaphylaxis is allergic reactions that is life-threatening and cause a very serious condition in human life. The most common sources that trigger anaphylactic reactions are foods, insect stings, medications and latex. In fact, the incidence rate of anaphylaxis due to medication was higher compared to other contributing factors. This shows that significant interest should be given in study on ADR related to anaphylaxis as it contributed to one of the major causes of morbidity and fatality in health care.

Objectives: There is a lack of local data regarding the incidence and clinical characteristics of ADR related to drug-induced anaphylaxis in Malaysia. This study is designed to determine the trend of reported drug induced anaphylaxis, what most common drugs involved, the characteristics, predisposing factors, severity and consequences of the cases that cause increased risk of anaphylaxis. This study also intended to describe the management given and outcome of drug-induced anaphylaxis in Malaysia.

Methods: This research is a type of retrospective study without direct human intervention. All data intended for research analysis was collected from National Pharmaceutical Control Bureau (NPCB) at pharmacovigilance section. Overall 291 ADRs reports from year 2010 until 2014 retrieved from Quest 2 database. The collected data were analysed using Statistical Package for Social Science (SPSS) version 21.0 and Microsoft Office Excel version 2010.

Results: The state that contributed to the highest number of reports was Selangor (n = 40; 13.7%). More than half of the patient that developed anaphylaxis due to drug was female (n = 160; 55.0%) while male (n = 127; 43.6%). Majority of the patients were Malay (n = 150, 51.5%). Patient aged between 16 to 30 years old were found to be the highest number reported ADR related with the anaphylaxis (n = 98; 33.7%). There was no association between the age groups (P = 0.778), the gender (P = 0.897) and race (P = 0.092) with the extent of severity. The highest number of drug involved in anaphylaxis was belong to NSAIDs group drug with percentage 31.9% (n = 93). The most common agent that were used to manage anaphylaxis were hydrocortisone, antihistamine and adrenaline with percentage 69.1% (n = 201), 53.6% (n = 156) and 50.5% (n = 147) respectively.

Conclusions: The study has shown the trend of drug-induced anaphylaxis in Malaysia. NSAIDs were found to be the culprit in inducing anaphylaxis based on the data collected from year 2010 until year 2014.

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CHAPTER ONE

INTRODUCTION

1.1 OVERVIEW

Adverse drug reactions (ADR) event are most frequently occurs once patients or physicians did some mistakes in medication usage. ADR may occur when the drugs are taken by patients in the wrong manner such as the patient taking wrong drug, wrong duration, wrong frequency, wrong doses and also the wrong route of administration of the drugs. A side-effect refers to any effect produced by a drug except the therapeutic effect, either it is a beneficial, harmful or neutral effect (Ferner & Butt, 2008). Differ to the side effect, ADR are more harmful event. According to World Health Organization (WHO) (2002), ADR was defined as whatever unintended and dangerous response to a medication that occurs at doses regime normally used in a person intended for the clinical medical treatment. Generally, ADR are not very serious, manageable and tolerable but some of them may lead to hospitalization due to serious complication and sometimes can be fatal.