

Mucocutaneous Adverse Drug Reactions In A Hospital Setting In Cameroon

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Abstract

Mucocutaneous drug reactions are common in our setting. Our objectives were to evaluate the prevalence of mucocutaneous drug reactions due to systemic drugs. A retrospective cohort study of outpatients with the diagnosis of Adverse Drug Reaction was carried out over 6 years in the University Teaching Hospital, Yaoundé.

138 cases of mucocutaneous drug reactions were evaluated. Fixed Drug Eruptions accounted for more than 60.7% of all the Adverse Drug Reactions. Sulphonamides were responsible for 82% of all the Fixed Drug Eruptions and were the offending drug in 65% of all the Adverse Drug Reactions documented. 28.9% of the subjects were HIV positive. 24 cases were hospitalized because of severity out of which 6 died (25%). The prevalence of drug reactions in the study is 3.5 %. The most common drug reaction is the Fixed Drug Eruption. The most offending drugs are Sulphonamides.

Proper management of Adverse Drug Reactions is necessary and early referral of patients may be life saving.

INTRODUCTION

Drugs are used for the investigation, prevention or treatment of diseases. Adverse Drug Reactions (ADRs) occur mostly on the skin and mucus membranes. The incidence of mucocutaneous drug reactions varies from 6-15 % (1) and has been reported to be as high as 30 % (2) in some centers. One in forty consultations is due to adverse drug reactions (3). Surveys in the United Kingdom revealed that not more than 10% of adverse drug reactions are reported (4, 5).

In Cameroon, no study has been done on the prevalence of drug reactions. The types of reactions will vary depending on which drugs are most frequently used and on which pathologies are most common. Sulphonamides are used a lot in sub-Saharan Africa for the treatment of malaria and HIV opportunistic infections.

OBJECTIVES

The objective of the study was to evaluate the clinical spectrum and demography of Adverse Drug Reactions in the Dermatology clinic of the University Teaching Hospital in Yaoundé and to describe the risk factors associated.

We also aimed at documenting the causal link between drugs and reactions using the WHO definition of causality for

future health planning and case management.

MATERIAL AND METHODS

A retrospective descriptive study of all patients diagnosed with mucocutaneous Adverse Drug Reactions (ADRs) was carried out covering a period of six years from January 2000 to January 2006, in the Dermatology clinic of the University Teaching Hospital, Yaoundé, Cameroon.

RESULTS

A total of 138 cases of mucocutaneous ADRs to systemic drugs were evaluated. There were two groups of patients; those with certain or probable causal relationships with the reactions (n=129), and those in whom no drug causal relationship was found (n=9). The ages ranged from 1 to 70 years. There were 56 males (40%) and 82 females (60%). The prevalence of ADRs was 3.5%. Fixed Drug Eruption (FDE) accounted for more than half of the ADRs (60.7%). Sulphonamides, either singly or in combination with Pyrimethamine or Trimethoprim were responsible for 82% of all the FDE and the offending drug in 65% of cases (90/138). Sulphonamides were also incriminated in Lyell's syndrome (72%), Steven Johnson Syndrome (60%) and Erythema Multiforme (75%). The other offending drugs were in order of decreasing frequency; Nevirapine (8.7%),

Penicillins (4.3%), Anticonvulsants (3.6%), Paracetamol (2.9%), Griseofulvine (1.4%) and Doxycycline (1.4%). See Table 1.

28.9 % of the subjects were HIV positive (40/138). 24/ 138 were admitted for management of severe lesions. 6 died from Lyell's syndrome (Toxic Epidermal Necrolysis).

Figure 1

Table 1: Morphology (type) of eruption and the causative drugs.

Morphology of reactions	Number of reactions	Percentage (%)	Cause and number of times incriminated	
Fixed drug eruptions (FDE)	85	60.7 %	Sulphonamides	69
			Amodiaquin	1
			Paracetamol	4
			Nevirapine	1
			Griseofulvin	1
			*Imputable cause of 9 cases of FDE could not be identified	9
Erythema Multiforme (EM)	12	8.7 %	Sulphonamides	9
			Ibuprofen	1
			Nevirapine	1
			Carbamazepine	1
Urticaria	11	8.0 %	Nevirapine	9
			Penicilline	1
			Sulphonamides	1
Steven Johnson Syndrome (SJS)	10	7.0 %	Sulphonamides	6
			Griseofulvin	1
			Penicillin	1
			Carbamazepine	2
Lyells Syndrome	07	5.0 %	Sulphonamides	5
			Nevirapine	1
			Ibuprofen	1
Morbiliiform	04	2.9 %	Penicillin	4
Erythroderma	03	2.2 %	Carbamazepine	1
			Sodium Valproate	1
			Cox2:	1
Angioedema	02	1.4 %	Xylocaine	1
			Nifedipine	1
Photosensitivity	02	1.4 %	Doxycycline	2
Acneiform	04	2.9 %	Steroids	2
			Iodine	1
			Anti TB	1
TOTAL	140	100%		140

NB: Some patients had more than one ADR

DISCUSSION

The exact prevalence of ADRs may be difficult to obtain owing to the fact that the investigator must rely on the patient reporting accurately, on the kind of drug taken. Because the skin has limited number of morphological reactions to drugs, it may be sometimes more difficult to determine the offending drug.

We found a prevalence of 3.5%. Other studies have reported 11.6% and 0.7% (_{6, 7}). Our findings on FDE are similar to those of Nnoruka et al (₈) in Nigeria who reported FDEs as the most common ADRs. The prevalence of FDEs varies widely from country to country with values ranging from 12-27% (_{8, 9, 10}).

On the contrary, studies in western countries have morbiliforme eruptions as the most frequent ADRs. In these countries aminopenicillins are incriminated and are the most commonly used drugs. (_{6, 11, 12})

Many studies have confirmed the increased incidence of ADR among HIV infected patients as compared to the general population (_{13, 14, 15}). This can be explained by the increased number of drugs prescribed for these patients and the higher risk of drug interaction and possible immune dysregulation (₁₅). One of the HIV positive cases had severe Steven Johnson Syndrome(SJS). Nevirapine has been reported to cause SJS (_{16, 17}). Drug reaction in HIV patients may be as high as 50%.

Only 17.4% (24/138) of our patients had severe reactions as compared to 34% in a French study. (₁₈)

CONCLUSION

Automedication, poor reporting of ADRs and alternate forms of medicine may prevent proper recording of drug reactions in a community. The prevalence of ADRs is comparable with literature. Survival rates from severe reactions can be improved if adapted centers were available.

We recommend that, patients should carry drug cards indicating which drugs they are allergic to. Attending physicians should always ask of any drug allergies. Owing to the therapeutic implications and constraints of ADRs, review by a Dermatologist may be necessary. A multidisciplinary approach is encouraged. Referral to a well equipped burn center may be life saving.

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