

ALARMING MEDICINES: A SURVEY ON 100 DOCTORS IN RAJASTHAN

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ABSTRACT

Pharmaceutical negligence among doctors can lead to hazardous effects on the general health of a patient. Despite such responsibility, India is becoming a hub for the availability and usage of bannable/harmful medicines like Nimesulide, Lomofen, Rofecoxib etc. A drug is banned on the basis of risk versus benefit ratio evaluated through post marketing surveillance and Adverse Drug Reaction reporting system. Questionnaires including the various drugs banned were categorized with other safe drugs. The result that emerged is shocking as 90 % of Doctors are not even aware of the banned drugs and out of 100 % doctors and 20-30 % of them knew only partially of the banned list and not the complete classified groups of prohibited drugs and the side effects. Is it really necessary to take such risks when safer alternative are available?

KEYWORDS: Pharmacovigilance, Banned Drugs, Nimesulide, Over The Counter, Side Effects, Adverse Drug Reactions

INTRODUCTION

Medical profession is getting defamed and crippled in India because of various factors like self medication, lack of knowledge among doctors, inefficient government policies, unethical drug promotion and medical commercialization. Pharmaceutical negligence among doctors can lead to hazardous effects on the general health of a patient. A drug is banned on the basis of risk versus benefit ratio evaluated through post marketing surveillance and Adverse Drug Reaction reporting system. The main objective of this paper is to identify awareness and knowledge

of Medical and Dental practitioners based in Jaipur, Rajasthan regarding bannable/harmful drugs in India.

Irrational & inappropriate use of certain drugs like Nimesulide, which is a non steroidal anti inflammatory drug poses an alarming situation for India, due to its potential to cause hepatotoxicity (esp. in children due to prolonged use to treat fever and pain), cholestasis, pruritis, colon cancer, coagulopathy and seizures in smokers over a period of time.^[1] It is not used in USA, Finland, Spain, Bangladesh, Portugal, Singapore and Israel but is still used in India.

Rofecoxib/celecoxib is also a non steroidal anti inflammatory drug mainly prescribed for toothache, osteoarthritis, rheumatoid arthritis, painful menstruation but have adverse effects like heart attack, stroke & allergies.^[2]

Lomofen/ Dependal-M indicated for diarrhea, cholera, salmonella infection is banned in developed countries as they may lead to cancer, tremors, convulsions, peripheral neuritis, gastrointestinal disturbances and depression of spermatogenesis. Enteroquinol, another very famous drug used for dysentery, colitis is also banned because of hazardous effects like Optic neuritis peripheral neuropathy, anal irritation. Anti-worm medication like piperazine is banned as it may cause nerve damage.^[3] Gatifloxacin is used as an antibiotic, but according to Drug Technical Advisory Board this drug is known to affect blood sugar levels. Tegaserod is used in India for irritable bowel syndrome and chronic constipation is banned all over as it increases the risk of heart attack and stroke by 10 folds.^[4] Another laxative named agarol was banned due to its Carcinogenicity.^[5]

D' cold containing Phenylpropanolamine is widely used for cough & cold can lead to stroke, dyspnoea, swelling of lips, tongue and face and hallucinations. It's also available by name of Vicks Action – 500, wincold.^{[6][7]}

Astemizole and terfenadine are antihistaminics used to treat allergies, urticaria are reported to cause adverse cardiovascular reactions when used concomitantly with imidazole anti fungal and macrolide antibiotics. Rimonabant, fenfluramine (anti-obesity drugs) also exert CVS disturbances.^[8]

Fixed-dose combination of flupenthixol and melitracen, sold under the brand name of deanxit, has been banned in advanced countries due to the health hazards.^[9]

Due to improper pharmacovigilance and no adverse drug reaction reporting systems, such over the counter drugs are holding a strong position in the Indian market and are available for self medication as well as prescription use.^[10]

MATERIAL & METHODS

A survey form was made including the various common ailments that occur in any community and some of the commonly available drugs were identified for these ailments. Random selection of 100 doctors (both 50 medical and 50 dental) belonging to different specialties in government as well as private settings was done in Jaipur city, Rajasthan. Personal visit to doctor's house and/or clinics/hospitals with the survey form (Annexure 1) was made to discuss the awareness and knowledge of the Doctor regarding the banned drugs in India. Proper consent was taken from all the doctors and the form was made in such a way that various common drugs were jumbled with certain harmful drugs to collect unbiased information from the doctors. Permission for conducting this study was taken by the Ethics and Research committee of Jaipur Dental College, Rajasthan. The objectives of the study were to evaluate the percentage of medical and dental specialists using banned drugs due to lack of awareness and to clearly speculate the knowledge about few drugs that are banned/harmful. This study also emphasizes on the comparison between self medication and prescription of these drugs by professionals along with availability in the form of physician sample or over the counter medicines.

RESULTS

According to data obtained with the help of questionnaire was tabulated and then evaluated. Approximately 90 percent of the medical professionals were unaware about the various side effects related to the above mentioned drugs. as shown in figure 1, 90 percent of medical specialist were using over the counter drugs like nimesulide, lomofen, Dcold, astimazole followed by dependal-m, enteroquinol (80 percent). Some of the drugs like rofecoxib, fenfluramine, furacin are now obsolete and are not used by doctors. (Figure 1) The dental fraternity follows quite a similar pattern. Moreover, they were unknown to certain drugs like fenfluramine, agarol, droperol, rosiglitazone etc. On quantitative analysis, it was seen that in India, along with the medical as well

as dental specialists lack significant knowledge about the side effects exerted by these harmful medicine on the general well being of an individual.(Figure 2)

On application of chi square test using SPSS software package version 7, statistical observations revealed that out of 18 bannable drugs 8 are being prescribed by the medical specialists in their routine OPD whereas 10 drugs are being prescribed by dental professionals. However, the data is statistically not significant it reflects the irresponsible outlook of doctors and government. (Table 1)

The awareness status of doctors is so less that even these medications are used by doctors for their own treatment of various common ailments. (Table 2)

This table depicts that 17 out of 18 drugs are available over the counter, which explains the irresponsible and inefficient government policies for eradicating the illness of a particular patient. But, only 4 out 18 are supplied by the pharmaceutical companies in the form of samples for distribution among doctors. This data showed statistically significant results with a p value of $<.001$. (Table 3)

DISCUSSION

Medicines form an integral part of every man's life in today's world and imagine if that medicine is making you ill rather than curing you. These medicines are dangerous and cause massive damage in a country like India where several people self-medicate and where drugs are sold without prescriptions. Due to media's scrutiny and increased medico legal knowledge among people, the drug control agencies are making strict pharmacovigilant programs in order to regulate such malpractices that affect the society in more than one ways. The proliferation of bannable drugs in India is a serious problem for the health of people and there is an urgent need to curb it. The medicines which have been labeled as silent killers overseas and have been withdrawn from the international market are making their space in India

This study illustrates that even though information regarding these medicines is being updated by government, doctors are highly unaware of these facts especially in the rural areas where the accessibility is low due to lack of media intervention and availability of resources. According to this survey, only about 10 % of doctors are aware of the ill effects of these drugs. Some of them are prescribed even after knowing the side effects of Nimesulide in children because of commercialization and self benefits of a doctor. Adverse drug reaction reports have been mentioned in the literature about its association with angina ^[11] ^[12]^[13] and increased risk in cardiovascular compromise by acting on the prostaglandin synthesis. In western countries huge trial studies have been done to demonstrate the lethal long term effects of diabetic drugs like phenformin and rosiglitazone.^[14]^[15] Therefore, the relevant authorities should take immediate actions by discontinuation of these medicines and should arrange information leaflets, public health campaigning for both doctors and common man regarding these medicines. Is it really necessary to take such risks when safer alternative are available?

CONCLUSION

Awareness among medical and dental professionals holds paramount importance in the formulation of an effective and harmless prescription. Therefore, these bannable drugs should be in knowledge of all medical fraternity to avoid fatal emergencies and welfare of the community at different levels.

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Figure 1: Percentage of banned drugs used by medical specialists

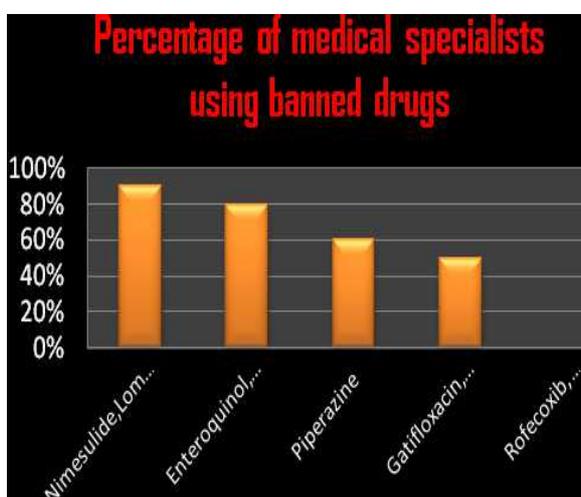


Figure 2: Percentage of banned drugs used by dental specialists

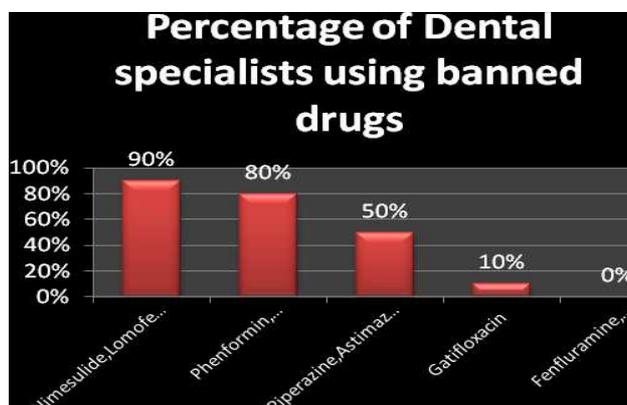


Table 1: Total number of drugs prescribed by medical and dental professionals.

	Prescription		Total
	Yes	No	
Medical SP	8 (44.44)	10 (55.56)	18 (100.00)
Dental SP	10 (55.56)	8 (44.44)	18 (100.00)
Total	18 (50.00)	18 (50.00)	36 (100.00)

$\chi^2 = 0.444$ d.f. = 1 $p > .05$

Table 2: Total number of drugs out of 18 used by doctors for self medication

	Self medication		Total
	Yes	No	
Medical SP	8 (44.44)	10 (55.56)	18 (100.00)
Dental SP	12 (66.67)	6 (33.33)	18 (100.00)
Total	20 (55.56)	16 (44.44)	36 (100.00)

$\chi^2 = 1.800$ d.f. = 1 $p > .05$

Table 3: Number of drugs available over the counter and as physician sample for prescription

	Banned drug		Total
	Yes	No	
OTC	17 (94.44)	1 (5.56)	18 (100.00)
Physician sample	4 (22.22)	14 (77.78)	18 (100.00)
Total	21 (58.33)	15 (41.67)	36 (100.00)

$\chi^2 = 16.457$ d.f. = 1 $p < .001$

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Form for Survey of Commonly Used Drugs for Common Ailments

Doctor's name:

Place:

Ailment	Drugs	Self Medication(S)/ Prescription(P)	Side Effects	Availability	
				Over the counter	Physician sample
Pain(Toothache, Headache, Muscular Pain)	a. Ibuprofen b. Nimesulide c. Diclomol-P d. Rofecoxib				
Diarrhea	a. Oflox-Oz b. Enteroquinol c. Dependal-M d. Lomofen				
Cough & Cold	a. Cozy-Plus b. D'cold c. Gatifoxacin				
Allergic Reactions	a. Avil b. Astemizole c. Terfinadine				
Laxative	a. Isapgol b. Agarol c. Cremaffin d. Tegaserod				
Bacterial Infection	a. Furacin b. Soframycin c. Fusidin				
Worm infection	a. Piperazine b. Albendazole c. Ivermectin				
Anti diabetic drugs	a. Rosiglitazone b. phenformin c. Glipizide				
Anti-obesity drugs	a. Sibutramine b. Rimonabant c. Fenfluramine				
For Depression	a. Droperol b. Deanxit c. Tryptomer				