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PREVALENCE OF DIETARY SUPPLEMENTS AND AYURVEDIC MEDICINES' INTAKE BY PATIENTS TAKING PRESCRIBED ALLOPATHIC MEDICINES AT LUCKNOW

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ABSTRACT

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Aim: Present study was done to know the prevalence of the use of dietary supplements and ayurvedic drugs by patients taking allopathic drugs.

Introduction: Allopathic drugs are likely to act with ayurvedic drugs and dietary supplements and concurrently used. This concept is usually not recognized by the patients and physicians. Sometimes this may prove dangerous. Present study was done to find out the prevalence of concurrent administration of these produce so that a message can be spread to reduce these habits in patients and physicians.

Method: We did study among private practitioners of medicine, general surgery and gynaecology specialities. The patients were interviewed by our team members and requested to fill a proforma. After completion of study data were segregated and analyzed for various parameters.

Results: Results showed that 25.6% patients attending physician, 39.9% attending surgeons and 41.4% attending gynaecologists were taking some or other preparations in various forms. Out of all patients only 18.2% patients knew that these preparations were also a form of drug. Only 9.1% of all patients told this information to their treating doctors. Only 15.2% doctors asked the patients about this type of possibility.

Conclusion: Study shows that considerable proportions of patients have been taking dietary supplements and ayurvedic preparations without knowing that this may be harmful when taken along with allopathic medicines. This needs considerations for rational therapy.

INTRODUCTION: Patients usually take dietary supplements and ayurvedic medicines without having impression that these preparations may also alter their physiological processes. These may alter, in one or other way, the pharmacokinetics and pharmacodynamics of allopathic medicines¹. Moreover, most of the patients don't reveal this information to their treating doctors. Doctors also are not very keen to ask this type of fact though it is very important. In patients' perspectives most of these substances are completely

safe and are natural products which, but this fact may not be completely right². This may be a false belief which may sometimes prove to be dangerous. Dietary supplements as well as herbal drugs may have potential for their own action as well as potential to interact with the other co-prescribed drugs³. These interactions may be due to the active drug compound itself or may be due to impurities present in them. This is more likely with the dietary supplements due to less restrictions over them because they don't come under

preview of FDA (Food and Drug Administration) ⁴. Rational drug therapy requires right drug in right dose and formulation to the right patient ⁵⁻⁶.

Concurrent addition of dietary supplements and ayurvedic preparations makes the drug therapy irrational. Self medication in India is very common and patients are very likely to take various preparations by themselves without knowing consequences ⁷. There has been occurring an increase in the population consuming herbal therapies and the worldwide market of herbal medicine ⁸.

India is very rich in natural resources and more than 500 plants are used in ayurvedic medicines. Ayurvedic preparations are very popular in India. As the herbs and other natural preparations are getting popular, interactions among these preparations are very likely to occur and needs consideration.

There are known interactions of St. John's Wort (*Hypericum perforatum*), *Ginkgo biloba*, Green tea (*Camellia sinensis*) Garlic (*Allium sativum*), Ginger (*Zingiber officinalis*), Licorice (*Glycyrrhiza glabra*), Soyabeans (*Glycine max*), Shankhapuspi (*Evolvulus alsibnoides*), ginseng (*Panax ginseng*) and Papain etc. with allopathic preparations ^{9,10,11,12}.

Keeping these things in mind present study was done to know the prevalence of intake of these products by patients who were prescribed allopathic medicines.

Methods: The study was cross-sectional interviewing the patients attending to OPDs of physicians, surgeons and gynecologists practicing as private practitioners in Alambagh and Chowk areas of Lucknow. Patients when came out of the chamber of doctor, were requested to fill a proforma as well as interviewed directly regarding informations like patients' demographic profiles, complaints, drugs prescribed and the use of dietary supplements and herbal medicines. It also included whether doctors asked regarding this information or not. Last information was regarding their views on the safety issues of these preparations. Study was done for a total period of 18 months (May 2008 to Oct. 2009). Data were collected and analyzed for the prevalence in separate groups.

RESULTS: There were 592 responders for the questionnaires. Verbal consent was taken from the patients having explained the procedure. **Table 1** shows demographic profile of patients. **Table 2** shows answers for various parameters of the study. Results show that there is significant number of patients taking dietary supplements or ayurvedic medicines concurrently with the allopathic medicines. Surprisingly most of the doctors did not ask about the possibility of taking these types of preparations by the patients. In our medical teaching, history taking is the most important part of any type of therapy. History taking clearly indicates that doctors should ask all the informations regarding any medication whether allopathic or other preparations. Most of patients consider these products as natural and safe and don't consider them as drugs.

TABLE 1: PATIENTS' CHARACTERISTICS

Parameters	Patients visited to physician	Patients visited to surgeons	Patients visited to gynaecologists
Total No. of patients	277	187	128
Male	158	98	
Female	119	89	128
Age: 18-65 years	201	105	88
Age more than 65 years	76	82	40
Patients belonging to urban locality	176	78	56
Patients belonging to rural locality	101	109	72

TABLE 2: RESPONSES OBTAINED FROM THE PATIENTS

Parameters	Pt visited physicians		Pt. visited to surgeons		Pt. visited to gynecologists	
	Urban area	Rural area	Urban area	Rural area	Urban area	Rural area
Total No. of Patients	176	101	78	109	56	72
Patients taking dietary supplements or ayurvedic medicines	42 23.86%	29 28.71%	21 26.92%	35 32.1%	22 39.2%	31 43.05%
Patients giving information to doctor	12 6.8%	08 7.9%	05 6.4%	13 11.92%	07 12.5%	09 12.5%
Doctors asked for information	16 9.1%	13 12.9%	19 24.4%	21 19.3%	09 16.4%	12 16.7%
No. of patients who were aware of consequences these products	28 15.9%	15 14.85%	22 28.2%	13 11.9%	24 42.5%	06 8.3%
Average no. of drugs prescribed	4.8	4.9	3.1	3.5	3.4	3.9

DISCUSSION AND CONCLUSION: The use of ayurvedic drugs and dietary supplements are mostly not supervised by doctors resulting in increased harm to the patients especially if drugs have latent interactions with them. In many cases mechanisms and causality are uncertain or unpredictable. In addition, inadequate information and under-reporting make it difficult to determine whether herb drug interactions have occurred or not. Though in fact herb-drug interactions certainly do occur and are much more common than what doctors or patients believe^{13, 14, 15}.

Usually, herbal medicines interact with other drugs in two general ways: pharmacokinetically and pharmacodynamically¹⁶.

Pharmacokinetic interactions result in alterations of drugs' or other co-administered substances' bioavailability due to effects on absorption, distribution, metabolism or elimination. Pharmacodynamic interactions may increase or decrease the actions of other drugs, or, may bring about an entirely new action. These types of interactions may not be desirable and may produce dangerous effects on the patients. This may be minimized by proper history taking about not only the allopathic drugs but also ayurvedic drugs and dietary supplements always have suspicion of interactions between these substances and the drugs which doctor prescribes.

Patients should be informed about these types of interactions so that they can reveal this information to treating doctor. They should be discouraged to take the health supplements by their own. All these efforts will make the therapeutics more effective, safe and rational.

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