

Alternative Approach to Drug Resistance

Kumar Ajay*

*Department of Prasuti Tantra Faculty of Ayurveda I.M.S., BHU, Varanasi, India

Abstract

Globalization and corporate interest in traditional system of medicine especially in Ayurveda is now limited only up to discovery of new drugs or molecules of their own interest. The researchers are exploring the traditional medicine to discover new potent effective and safer alternative for the present formulation of allopathic drugs or to incorporate them in modern drug formulation. Ayurveda differs from the conventional system of medicine because of its preventive and systemic approaches rather than target oriented approach. It has huge potential for serving humanity as it almost encompass the every aspect of human life, then why we are trying to limit its knowledge as a resource of safe alternative of modern drugs only. Here we will discuss about non pharmacological aspect of Ayurveda in preventing the diseases and drug resistance challenges.

Keywords

Drug resistance, Ayurveda, Molecule, Alternative medicine



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INTRODUCTION

Excessive dependency and irrational use of antimicrobial drugs has arisen the antimicrobial resistance as global threat. The whole world is looking towards the Ayurveda to meet the challenges of drug resistance and safer alternatives, most of the researches are centered to the pharmacological aspect of Ayurveda only, whereas non-pharmacological measures are equally important in combating these future challenges. Ayurveda is unique because it follows not only the germ theory of diseases but genetic hereditary and metabolic causes of disease also^{1,2,3}. Ayurveda approach is holistic rather than to kill the microbes which leads to suppression of diseases than cure. The first and foremost protocol of treatment is Nidana parivarjan, which means, avoidance of disease aggravating or causative factors. Nidana parivarjan includes all the disease aggravating factors either in the form of aharaj, viharaj and aushadh. Aushadh is also considered as causative factor of disease, this means ayurveda accepts that improper use of drugs may produce adverse effect or aggravate disease. Acharya Chakrapani has mentioned 18 types of disease pacifying and aggravating factors

under *aushadh* (drugs) ,*anna*(diet) and *vihar* (routine activities)⁴.

Srotas viman and Kha vaigunya are another peculiarity of ayurveda which widens view of understanding the origin of disease and their symptoms^{5,6}. Extraction of new molecule from ayurvedic pharmacopeia is not the perfect and long term solution for drug resistance and safer alternative of modern drugs. Preventive medicine and non-pharmacological measures of ayurveda helps to decrease scarcity, dependency, consumption and improper use of drugs which indirectly reduce the drug resistance and consumption also then only the vision of ayurveda about health can be achieved "*Samdosha samagnisch samdhatu malkriya prassnatma indriya man swasth ityabhidhiyate*"⁷.

OBSERVATION

Most of the pathogenic bacteria have developed resistance to modern antibiotics as a result of which we are evidencing multi drug resistance among bacteria, as a result, research in alternative medicine has begun and one such alternative is use of herbal drugs to treat infections. Recently, it was demonstrated that many human pathogenic



bacteria have developed resistance against several synthetic drugs^{8,9,10}. More than 80% of the population within developing countries relies on the use of herbal and other traditional medicines for their primary health care due to their lower cost and time-tested nature^{11,12}.

The recent resurgence of public interest in herbal remedies has been attributed to several factors some of which includes¹³ -

1. Various claims on the efficacy or effectiveness of plant medicines.
2. Preference of consumers for natural therapies and a greater interest in alternative medicines.
3. Erroneous belief that herbal products are superior to manufactured products.
4. Dissatisfaction with the results from orthodox pharmaceuticals.
5. High cost and side effects of most modern drugs.
6. Improvements in the quality, efficacy, and safety of herbal medicines with the development of science and technology.
7. A movement toward self-medication.

DISCUSSION

From the above observation various evidences can be obtained that how the

global acceptance of Ayurveda are increasing and what are the factors that helps Ayurveda to become global. At global level it emerges as a source of safer alternate of modern medicine. There are some evidences that crude form of drug is more effective and has no adverse effect implies the concept of ayurveda about the effect of *ritu ,kaal , kshetra ,disha* on the *rasa, guna, virya* and *vipaka* of the drugs what you can call pharmacodynamic and pharmacokinetic properties of the drugs. Single and polyherbal preparations have diverse range of bioactive molecules and play a dominant role in the maintenance of human health since ancient times.¹⁴ since this is a strong need to explain the fundamental principles of Ayurveda in modern context and addressing the growing demand for an evidence base research in contemporary Ayurved¹⁵. Perfect and long term solution of present challenge of drug resistance and safer alternative can only be achieved by promoting the non-pharmacological measures of ayurveda .

CONCLUSION

"Hitahitam Sukham Dukham Aayustsya hitahitam Maanam Ch tachh yatroktam

Ayurved S Ucchayate" This ancient verse defines Ayurveda as the science of life, which explain's about the principles, diet and lifestyles that are good or bad for life, what leads to a happy or unhappy life and what is the exact span of life, that is known as Ayurveda. We must reduce our dependency over the various classes of antimicrobials and analgesic they are not only expensive but there irrational use imposes a danger of resistance. We can overcome these challenges of drug resistance and safer alternative by promoting the non pharmacological and preventive aspect of ayurveda that is not only safe but actually it is the perfect long term solution . So the above observation and discussion shows that our aim should not be confined only up to discovery of new potent molecule, rather it is wise to focus to increase understanding the basic concept and its application. Increasing incidence of life style and metabolic disorders again warns us to correct the concept of conventional medicine towards target oriented approach to systemic approach.



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