



IJAYUSH
International Journal of AYUSH
AYURVEDA, YOGA, UNANI, SIDDHA AND HOMEOPATHY
<http://internationaljournal.org.in/journal/index.php/ijayush/>

International Journal
Panacea
Research library
ISSN: 2349 7025

Review Article

Volume 11 Issue 02

March – April 2022

CONCEPT OF DRUG ACTION AND ROLE OF AYURVEDA PRINCIPLES FOR UNDERSTANDING DRUGS EFFECTS

Dr Milind Babarao Aware¹, Dr Ganesh Rambhau Harane^{2*}, Dr Bhavana Dande³

¹Professor, Shri Saptashruni Ayurved Mahavidyalaya and Hospital, Nashik, India.

²MD Scholar, Shri Saptashruni Ayurved Mahavidyalaya and Hospital, Nashik, India.

³Associate Professor, Shri Saptashruni Ayurved Mahavidyalaya and Hospital, Nashik,

**Correspondence:* Dr Ganesh Rambhau Harane

(MD Scholar, Shri Saptashruni Ayurved Mahavidyalaya and Hospital, Nashik, India)

Abstract

Ayurveda described drug as an important entity one among the *Pada Chatustaya*. The success of any therapy depends upon selection of appropriate drugs and their dosage forms. *Kwatha, Vati, Churna, Ghrita* and *Taila*, etc. are various types of Ayurveda formulations. The Ayurveda drugs exert their action by virtue of their characteristics i.e.; *Rasa, Guna, Vipaka, Prabhava* and *Veerya*. The Ayurveda concept of *Panchabhouthik* principle, concept of *Vridhhi, Saamyā & Kshaya, Samanya, Vishesha, Samavaya, Karana & Karya dravyas*, etc. are attributed to the particular pharmacological action of drugs. Ayurveda belief that action of drug greatly depends upon their timing of administration, state and age of patient, dosage and combinations with other ingredients. The proper knowledge of drug action is very essential to plan correct therapeutic measures for specific pathological conditions.

Key-Words: *Ayurveda, Drug, Pharmacology, Rasa, Guna, Karma*

Introduction

Ayurveda elaborated enormous ways of healthy living and in this regards Ayurveda suggested uses of many herbal and classical formulations for preventing and treating pathological ailments [1-3]. Ayurveda drugs exert their action by virtue of various concepts as depicted in **Figure 1**.

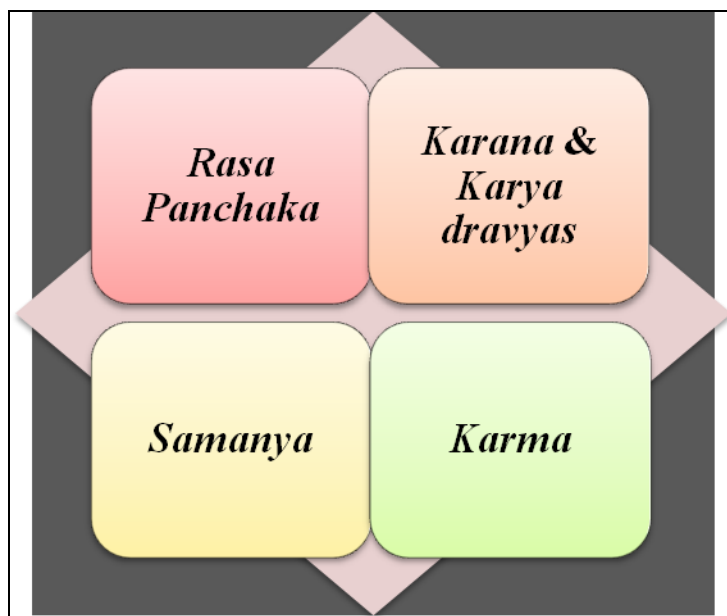


Figure 1: Ayurveda concepts related to the drug action

These Ayurveda drugs used after suitable pharmaceutical processing like *Kashaya*, *Churna*, *Ghrta* and *Vati*, etc. These dosage form helps to enhances drug action, increase shelf life of drug and improves drug absorption. The action of drugs also depends upon their vehicle/solvent. Water soluble drugs used in water, fat soluble fractions of medicines used in the form of *Taila*, alcohol also used as vehicle and helps to preserve drugs. The volatile drugs used in the form of *Hima/Phanta*. These vehicle and solvents need to be selected appropriately otherwise drug action may get affected [3-6].

The preparation of drug requires various processing which play important role towards the drug action, these processes which affects drug action are follows:

1. Identification of correct species of herbs and their origin.

३३

2. Extraction of active principles by various means of extraction.
3. Isolation of chief components.
4. Pharmaceutical processing which includes reduction in particle size, dissolving in solvent, filtration, drying and conversion into solid, liquid and semisolid dosage forms, etc.

The pharmacological and toxicological action of drugs mainly depends upon their *Rasa*, *Guna*, *Veerya*, *Vipaka* & *Prabhava*. The other concepts which can be used to explain drug action are as follows:

- ❖ *Panchamahabhuthas* concept.
- ❖ Concept of *Vridhhi*, *Saamya* & *Kshaya*.
- ❖ Concept of *Samanya*, *Vishesha* and *Samavaya*.
- ❖ *Karana* & *Karya dravyas* concept.
- ❖ Concept of *Dosha*, *Dhathu*, *Malas* and *Srothas*.
- ❖ *Shat kriya kalas* concept.

***Rasa Panchaka* Concept of Drug Action:**

Ayurveda mentioned concept of *Rasena Karma*, *Vipakena Karma*, *Gunena Karma*, *Viryena Karma* and *Prabhavena Karma*. *Rasa*, *Vipaka* and *Virya* of drugs supersede one another in order while *Vipaka* is a process not considered as active ingredient. The synergistic actions of drugs enhance their potency and opposite effect reduce potency of pharmacological action. As per modern consideration *Rasa*, *Guna* & *Virya Karmas* are responsible for pharmacodynamic effects of drugs while *Vipaka* as metabolite can be correlated with pharmacokinetic of drug [5-7].

Drug Action in Ayurveda explained on the basis of concept of *Rasa Panchaka* i.e., *Rasa*, *Guna*, *Virya*, *Vipaka* and *Prabhava*. Some actions of drug occur due to their *Rasa*, *Guna* also imparts some biological action, *Virya* affects potency and *Vipaka* resembles drug metabolite.

- ✓ The drugs possessing *Kashaya rasa* offers *Pitta shamaka* effect.
- ✓ *Ruksha Guna* gives *Kapha Shamaka* effects.
- ✓ *Kashaya Tikta* in *Rasa* is also gives *Pitta Shamaka* effects.
- ✓ *Tikta Rasa* gives *Kapha pittahara* effect.
- ✓ *Ushna virya* gives *Vatahara* effect.
- ✓ *Madhura vipaka* gives *Vrsyai* effect.

Activities in matter:

Activities in matter described in terms of *Bhutatma*, *Jeevatma* and *Paramatma*. *Bhutatma* described as activity in the micro matter, *Jeevatma* described activity in organic matter while *Paramatma* resembles activity in the galaxy.

Role of *Samanya*, *Vishesha* and *Samavaya* concept towards the Drug Action:

This concept says that similar properties of substances enhance qualities of each other thus increases potency of drug while opposite properties of therapeutic substances reduces potency of each other. When substances of opposite properties used then most powerful will overcome the others. *Samyoga* and *Samskara* are factors which affects drug action in combination along with *Desha* and *Kala*.

Concept of *Dravya samanya*, *Guna samanya* and *Karma samanya* described in Ayurveda for elaborating combined effects of therapeutic substances. *Dravya samanya* means similar drugs, *Guna samanya* means uses of drugs having similar *Guna* (property) and *Karma samanya* means uses of drugs together possessing similar actions. Moreover Ayurveda also presented concept of *Athyantha samanya*, *Madhya samanya* and *Eka desha samanya*.

Ayurveda aspect of *Dravya vishesha* resembles specific uses of drugs for particular condition based on their traditional practices. *Guna vishesha* indicates uses of drugs based on their specific *Guna* (properties) and concept of *Karma visheshai* referred for utilization of drugs based on their specific *Karma* (action). *Karma* is the cause and *Karya* is effect. *Dravya karma* is affected by their quantity and combinations.

Ayurveda view on Absorption:

Amashaya is considered site for the absorption of *Snigdha*, *Sheetha* & *Guru* substances. *Snigdha*, *Ushna* & *Laghu* absorbed at the site of *Grahani* while *Pakwashaya* absorbed *Ruksha* and *Laghu* substances.

Drugs affecting *Kapha* mainly exerts their action through *Amashaya*, throat and respiratory passage. The *Pitta* action mainly observed as the site of *Grahani* and action of *Vata* modulating drugs mainly observed at the site of *Pakwashaya*. *Adhikarana* is main site of action. Drugs exhibit pharmacological effects by altering *Srothas*, *Doshas*, *Dhathus*, *Malas*, *Upadhathus*, *Ashayas* and *Agni*, etc.

The Ayurveda drugs alters *Doshas*, *Dhathus*, *Malas* and *Agni*, etc. thus exerts various types of pharmacological actions including *Deepana*, *Pachana*, *Samshodhana*, *Samshamana*, *Anulomana*, *Sthambhana*, *Pramaathi*, *Asukaari*, *Yogavahi*, *Pranahara*, *Bhedhana*, *Rechana*, *Chedana* and *Jeevaniya*, etc. effects [7-9].

Conclusion

Ayurveda described various concepts related to the pharmacokinetic and pharmacodynamic properties of drugs. The Ayurveda drugs mainly used as herb or in the form of compound formulations i.e. *Kwatha*, *Vati*, *Churna*, *Ghrita* and *Taila*, etc. The Ayurveda drugs exert their action by virtue of their *Rasa*, *Guna*, *Vipaka*, *Prabhava* and *Veerya*. The Ayurveda philosopher described concepts like *Vridhhi*, *Kshaya*, *Samanya*, *Vishesha*, *Karana* & *Karya dravyas*, etc. which can be used to understand biological action of drugs. However action of drugs also depends upon their timing and quantity of drug administration, frequency of dosing and vehicle used for drug administration, etc. Ayurveda drugs exerts their action by acting on *Doshas*, *Dhathus*, *Malas*, *Agni* and *Srothas*, etc. The knowledge of drug action is very essential to plan correct therapeutic measures for specific pathological conditions.

References

1. Yadavji Trikamji Acharya, Charaka Samhita with Ayurveda deepika commentary by Chakrapani Datta, Varanasi, Chaukambha Surabharati Prakashana, 2008, p. 704.
2. R. S. Satoskar, S. D., Bhandarkar, Rege, Nirmala. N., Pharmacology and Pharmacotherapeutics, 21 edition, Mumbai, Popular prakashan Pvt. Ltd, p. 412.
3. Yadavji Trikamji Acharya, Dravyaguna vijnanam, sixth Edition, Nagpur, Baidyanath Ayurveda bhavan limited, 1983 volume 1 (purvardha).
4. Dhyani Shivcharan, Rasa panchaka, 1 edition, Varanasi, Krishnadas academy, 1994, p-37.
5. Prof. D. S. Lucas, Dravyaguna vignana Basic Principles, First Edition, Varanasi, Choukambha Bharathi Academy, 2006, volume 1.
6. Dr. J.L.N. Shastry, Dravyaguna Vijnana, First Edition 2006, Varanasi, Charu Printers, Chaukambha Orientalia.
7. Bhavamishra, Bhava Prakasha, First Edition 1998, Tranlated by Prof. K.R. Srikantha Murthy, Varanasi, Krishnadas Academy, Vol I.
8. Acharya Priyavrath Sharma, Dhanvanthari Nighantu, with commentary of Dr. Guruprasad Sharma, Fourth Edition, 2005, Varanasi, Chaukambha Orientalia.
9. Vaidya Sureshan and Thapliyaal, Rasa-Bhaishajya Paribhasha, First Edition 1994, Varanasi, Chaukambha Sanskrith Prathishtaana.