

## Editorial

### Science of Ayurveda Principles of Drug Action

Professor Gurdip Singh

Editor-in-Chief, Journal of Ayurveda Physicians & Surgeons (JAPS)

Corresponding author: Email address: [profgurdip@rediffmail.com](mailto:profgurdip@rediffmail.com)

Access this article on online: [www.japs.co.in](http://www.japs.co.in)

Published by International-Academy of Ayurveda-Physicians (IAAP),  
7HB, Gandhinagar, Jamangar-361 002, Gujarat, India

Science says that in this universe depending upon the number of electrons present in the orbit of an atom various elements are created with specific properties. Ayurveda based on Indian philosophy says, all the matters of the universe are created by permutation and combination of five Mahabhuta which are transformed through the five respective Tanmatra (attributes).

Behavior of a matter depends upon permutation and combination of various constituents present in it and one of them is its Rasa (taste). Ayurveda identified six basic Rasa and depending upon the taste all matters has been classified into these six groups of Rasa. Every matter is dominated by a Rasa but may have second Rasa (Anurasa) too. Accordingly, the matters have been attributed certain actions. The Rasa plays important role in all types of behaviors of the matter related with nutritional, health and disorders as well as therapeutic and toxicity actions.

The physical characteristic of each Rasa is also defined i.e. Madhura Rasa is dominant by Prithvi and Jala; Amla by Prithvi and Agni; Lavana by Jala and Agni; Katu by Vayu and Agni; Tikta by Vayu and Agni and Kashaya by Prithvi and Vayu (Sushruta Sutra 42:4). Accordingly, Tikta, Katu and Kashaya are Laghu and Ruksha in Guna and Madhura, Amla and Lavana are Guru and Snigdha in Guna. The effect of Rasa on Dosha is determined and accordingly Madhura, Amla and Lavana increases Kapha but decreases Vata; Amla, Lavana and Katu Rasa increase Pitta but pacify Kapha. But some exceptions are also mentioned e.g. Vata pacifying Rasa if possesses Ruksha, Laghu and Shita Guna then they do not pacify Vata. If Pitta pacifying Rasa possesses Tikshna, Ushna and Laghu Guna then they do not pacify Pitta. Similarly, Kapha pacifying Rasa if possesses Snigdha, Guru and Shita guna then they do not pacify Kapha (Sushruta Sutra 40:6-8).

According to physiology taste is the ability of nerve cells (taste bud) in tongue to sense certain chemical compounds and to transmit a message to the brain where the taste is identified. Chemical compounds that are responsible for bitter, sour, salty and sweet tastes can bind to these receptors. These receptors react to chemical compounds such as glucose, fructose, ionized salts, acids, sulfamides, alkaloids and glutamate and send the information to brain where the taste is finally perceived. This is a replica of Ayurveda concept of taste perception by Rasanendriya situated in the tongue. Only difference is Ayurveda names it Rasa while physiology says certain compounds.

The manifestation of taste depends upon the presence of certain chemicals in a matter. For example, various types of sugars such as glucose, fructose, sucrose etc give rise to sweet (Madhura Rasa). Various types of citrates and citric acids and such other chemicals are responsible for Amala Rasa.

Salt present in a matter is manifested as Lavana Rasa. The taste of chilly is due to capsaicin present in it and pungent taste of zinger is due to its zingerone content. Dry and puckering feeling in mouth is caused by Kashaya Rasa which is due to presence of tannins that are commonly found in many fruits, and so on.

Ayurveda further recognizes that during digestion and metabolism some of these tastes are converted into new substance, the behavior of which may be different from its original Rasa, hence the principle of Vipaka is deduced. Further there may be some powerful compound in small quantity which may not manifest as taste but when taken in produces specific effect other than that of Rasa, hence the principle of Virya. Even there are some matters which react differently from its known Rasa, Guna, Vipaka and Virya, hence it is considered as Prabhava (unexplainable action). Effect of Mantra, religious practices, counseling etc comes under Prabhava.

It is obvious from the foregoing that Ayurveda principles of drug action are well defined and based on the close observations of ancient Ayurveda scholars (sages) and reasoning. It is an easy and definite method of explaining as well as prediction of therapeutic action of a drug.

In the texts pros and cons of the law of Rasa, Guna, Virya, Vipaka and Prabhava are discussed and exceptions are mentioned (Charaka Sutra 26 and Sushruta Sutra 38 and onward). While explaining Vikalpa Samprapti and Amshamsha Kalpana has given some examples such as Kalaya vitiates Vata with Sarva-Bhava, Tanduliyaka by three Bhava, Kandekshu by two Bahava and Sidhu by only one Bhava. Similarly, Madya increases Pitta by all its Bhava, Hingu by two Bhava, Dipyaka by two Bhava and Tila by one Bhava. Milk of buffalo increases Kapha by all its Bhava, Rajadana Phala by thee Bhava, Kasheru by two Bhava and Khirani by one Bhava (Madhava Nidana 1). There is need to find out such other example to strengthen Ayurveda Nidana.

Castor oil is not irritant as such but when in the intestine it is digested by lipase it is converted into recenolic acid which is irritant and causes Rechana (purgation). This is the example of Vipaka and such other examples from Ayurveda texts and recent researches have to be found out. Concepts of Tara, tama etc are also there. The drugs having same Rasa should be further classified on the basis of Tara, Tama of Rasa. Therefore, we should work hard and enrich our science by finding other examples.

**Cite this Article as:** Gurdip Singh (2018): Science of Ayurveda Principles of Drug action- Editorial. Journal of Ayurveda Physicians and surgeons. Voume 5 (2), Page 42.