ABSTRACT:

*Dravyaguna* is a branch of Ayurveda which deals with the study of properties of plants and its effect on human body. *Rasapanchaka* is the speciality of Ayurveda which is explained on the principles of *Panchamahabhoot* which shows the systematic way to understand Pharmacodynamics and pharmacokinetics of the drug which ultimately help in the selection of drug for a particular disease and for the preventive measures also. It is a science which include all the principles which is important for the selection of a drug that leads to the success in the treatment, so it is fair to say that *Dravyaguna* is the backbone for the clinical practice of Ayurveda.

**Keywords** :- *Dravyaguna, Rasapanchaka, Panchamahabhoot*
INTRODUCTION

*Dravyaguna* as the name States is the part of the Ayurveda which is related to the properties of the *Dravya*. It has equal importance to fulfill both the motives of Ayurveda that is to maintain the health of healthy person and to cure a patient from the disease. To understand the vastness of *Dravyaguna* a very famous incidents which happened 2005 years ago in the Takshila University is being mentioned here. A man during his search for herbs in thick forests around Takshila was disappointed, as he could not find any such herb which has no medical property. Next day he told to his teacher that he was unable to find any such herb or tree which is having no medical property, to which his Guru stated that your education is completed as this incident shows that every herb has medical property which is been clearly stated in the principles of Ayurveda. This is the basis of *Dravyaguna* it considers every natural substance as a medicine nothing is non medical. *Dravyaguna* is not mention in Ashtang Ayurved has a separate identity as it is included in all the eight branches of treatment. In present time *Dravyaguna* is relatively faster growing and flourishing branch of Ayurveda. In present time gathering research information on drugs is slowly emerging in new areas of application progressively in newer drugs and newer actions of known drugs are being incorporated. This phenomena and forces us to review the principles of *Dravyaguna* with a new approach.

MATERIALS AND METHODS

The matter has been collected from Samhitas and modern books.

DISCUSSION

Ethnic Origin of Drugs:-In the vedic scriptures many medicinal properties and
preventive properties of the plants are being given but the systematic and scientific approach to the properties of the plants were mentioned in the Samhitā period. According to Achārya Charakā who was probably the first ethnobotanist on the records available the original source of any drug information is folklore practices as he suggested that tribals have great knowledge of the plants and a vaidya should learn this knowledge from them. “jagatyeve manaushadham na vidyate” - Vagbhata

Above saying shows a wider scope of Dravyaguna the clinical Pharmacology for pharmacotherapeutics. It also indicates the dimensions of efforts exercised by the teachers of Dravyaguna of that time.

**Difference between the approach of western system and the Indian system in understanding the properties of plants**

The present science can explain the particular action of a plant on the basis of its chemical composition as the concept followed by the modern system states that a particular action of a plant is carried due to a particular chemical where as Ayurveda explains the mode of action of different plants on the basis of panchmahabhoota which is being more specified as a Rasapanchaka siddhant in the field of Dravyaguna. The relation between plants and human beings are symbiotic or interdependent, essentially human beings are dependent on plants and so the plants on human beings. Herbs having inherited and unique pharmacological properties that affect the human health have been identified and recorded in the course of time in Vedas samhitās and nighantus. To understand the pharmacological actions and their effects, Ayurved has its unique concept known as the concept of Rasapanchāka.

**RASA PANCHAKA SIDHANTA (natural pharmacology laws)**

Rudimentary evidences of this concept are available in Vedas but the systematised format of this Siddhanta has been designed in the later stages. In the Samhitā period this was purely scientific way to evaluate the properties and action on the human body.

The milestones in the gradual evolution of Rasapanchāka theory are as follows:-

- One interesting conference on Sadrasa in Charaka Samhitā shows us the scientific enquiry followed in those days. The conference has been conducted to pharmacologically classify the innumerable tastes available in natural drugs.
- **Rajarshi varyovida** has suggested six *Gunas* as tastes probably basing on the effect of the substances on oral cavity.
- **Charaka** seems incredulous on the concept of *Virya*.
- **Susruta** has strived hard to strike a balance between *Vipaka* and *Virya*.
- **Vagbhata** has defined *Vipaka* - clarified and classified *Virya*.
- **Badanta Nagarjuna** has tried to explain *Virya* elaborately.
- **Sivadasa Sena** has clarified the theory of *Virya* saying the *Guna* is a denoting name (*Abidha*) of *Virya*.
- **Chakradatta** has given the term *Dravyaguna* for the first time.

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<th>S.NO.</th>
<th>SIDDHANT NAME</th>
<th>DESCRIPTION AND ITS IMPORTANCE</th>
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<td>1</td>
<td>RASA</td>
<td><em>Rasa</em> is what a person experience as soon as the given substance come in contact with the tongue according to Ayurveda there are 6 <em>Rasas</em> (<em>madhura, Amla, Lavana, Katu, Tikata, Kashaya</em>). The pharmacological classification of <em>Rasa</em> help to understand the relation between the activity of herb and its physical properties like taste it is to be noted that the action of drug is explained. On the basis of test only when it is administered through oral route for the drugs applied from the other routes than the oral route like <em>Basti, Abhayanga</em>, etc. the action should be explained on the basis of <em>Guna</em></td>
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<td>2</td>
<td>VIPAKA</td>
<td><em>Rasanam anytatva gamanam</em> is a prelude for the concept of <em>Vipaka</em>. 80% of herbs accepted the law of <em>Rasa</em>. Remaining found erratic in their effects. The transitory nature of taste (<em>Rasa anytatva gamanam - anya svaadvasya prapti</em>) is identified and considered to understand the actions of remaining drugs. The Digestion - <em>Jirna Kriya</em> is a process of decomposition done under controlled temperature and pressure. Foods / Drugs consumed orally split back to molecular state. (<em>Pilupaka</em>). Non assimilated fraction of <em>Ahara rasa</em> (Plasma -</td>
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where all the molecules are free and valiant state) is separated (vivechana) and excreted. The absorbable portions (sara) constitute a new combination of Bhutas. This new combination may have newer taste. That taste is called Vipaka. 80% drugs attain a taste after digestion depending on the original taste of the drug. 20% deviate. Thus the drugs escaping the law of Taste are explained on the basis of their Vipaka. Vipaka is not directly perceived by tongue but inferred by their effects on Dosha, Dhatu and Mala. They are classified in to three in tune with the Tridosha in the body.

**3 GUNA**

Linking the effect to Rasa and Vipaka is justified for the drugs administered orally. The physical properties (perceived mainly by Sparsanendriya) of the drug - Guna are considered to understand the effects. This is because the Tvak (skin / mucous membrane) has spread in all routes of administration in the body.

Another intriguing issue is these physical properties (Sarirakaguna) are primarily used to explain the body components (Dosha, Dathu and Mala). In fact there are innumerable physical properties in herb. Smell, its density, viscosity, surface tension, Ph value, ash value etc. But these properties have not picked up for the want of opposing property. They picked only 10 Gunas which have befitting opposing pairs. Thus they could explore these properties to the therapeutic benefit with the help of Samanya and Vishesa siddhanta.

**4 VIRYA**

Virya is an inherent capacity (energy) of action locked in the molecules of the drug. Such energy is seen only in natural organic substances. This bio-energy is the fuel for the living beings. Hence
every drug has certain nutritional aspects in Ayurveda. They are not simply pharmaceuticals. They are called Neutraceuticals as they also have a certain amount of nutritional / energy components. They do not have side effects unlike poisons / synthetic drugs. Poisons need not have any energy to supplement life as they end the life. Therefore *Virya* is a form of energy naturally seen in the herbs.

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<th><strong>PRABHAVA</strong></th>
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Drugs some time act beyond the influence of their properties. Such actions are not explainable on the basis of their properties. Besides *Aushadha karma* several such *Karmas* are identified with *Prabhava*. As it is not presumable is called as *Achintya shakti*. It is also time dependent. After some time the drug loose its *Prabhava*.

*Aushadaha karma*: Though the *Rasa, Guna, Vipaka & Virya* of are similar and the drugs exhibit different action then one among them is acting due to *Prabhava*.

Eg. *Danti* and *Chitraka*.

The properties of these drugs are indicative their *Bhautic* configuration. But when the direction among the *Bhutas* is varied the newer combination is resulted with varied action. eg. Isomers of modern chemistry

**THE BASIS OF PLANTS BEING MEDICINAL**

For the benefit of the human society explore the link between the plants and the human body, it is a science which deals with how to use, how much to use, where to use, in which form to use, how many times to use, with which to all these elements for each and every plant in the science which ultimately leads to benefit to the human society.

- a. Path used
- b. Form used
- c. Dose


d. Anupana (Vehicle)

e. Route/ Site of administration

f. Time of administration

e.g. Shatavari given in lactating mother produces galactagogue effect. Shatavari given to young adults becomes aphrodisiac. Same Shatavari given to acidic patients acts as an antacid. Shatavari thus produces three conjugates in three situations and exhibits three different actions. This knowhow of natural drug application is very much optimized in Ayurveda. Other herbal medicines though use herbs but not in this way prescribed in Dravyaguna. The effects produced with this technology are easily explicable and modifiable.

**Tunable drug effect**

The selection of drug and its dose and other components of prescription is to be designed according to the need and state of the recipient as the drug should be sustainable to the recipient if it is not suited then it may produce Side Effects so as the recipient changes according to the age-sex and constitution of the variables show the doors time and Anupan of drug changes. Acharya Charaka says that before giving drug one should be properly examined. Prescribing drug is a very complex process as many factors effects of the Drug dose and the type of drug to be used so that deep knowledge of Dravyaguna helps in the selection of drug which shows the importance of Dravyaguna for the clinical practice in day to day life.

Drug of choices- Agryaushadhi: Ayurveda has identified the best drug according to the diseases. Such classification of drug of choices is seldom seen in contemporary pharmacological sciences

Newer pharmacological actions- Several new pharmacological actions provided in Dravyaguna are brief in Samhitas in the name of Aushadha Gana. Mechanism of drug action- Most of the drugs are prescribed orally does the mechanism of these drugs follow the food pathway. the natural drugs and drug use same as the food .time of drug administration is revolve around the food intake this and acceptability of drug and to support this several method of drug preparation with food are being mentioned in the Ayurvedic classics.

a. Medicated foods

b. Medicated oils and ghee

c. Medicated milk

d. Medicated gruel
e. Medicated mutton soups

f. Medicated butter milk

g. Foods as medicines, E.g. Paddy turned into pop controls vomiting, Rice wash controls leucorrhoea. Fried wheat flour is antacid.

h. Fruits as medicines, e.g. Draksha Laxative, Dadima antidiarrhoeal etc.

These drugs digested like food follow a rule Kramaparinama nyaya and Kedarikulya nyaya. They exhibit their action by virtue of their physical properties. That is according to rasa, guna, Veerya, Vipaka. There are certain drugs which act by virtue of their inmade nature e.g. Opium induces sleep. They act directly by overtaking the food pathway. They follow a rule called Khalekapota nyaya. There are certain special drug application methods explained uniquely in Ayurveda

a. Children medication through lactating mothers. - When infants suffer from disease like fever diarrhoea the drug administration is quite difficult in such situations medications are given to the mother as a lactating mother excretes them through the milk she produce which ultimately reaches to the Infant easily in the initial age of child in this is the most comfortable and safe way to give the medication.

b. Vardhamana Prayoga⁴ - This is another special way to give drugs to the patient for example in Wardhaman Pippli Rasayan the dose is been gradually increase day by day till it reaches to 20 pippali in a day in this way the patient gradually accommodates and will able to consume larger dose, then after 20 days the dose is gradually decreasing that is one pippli per day at the end of the 40th day the treatment schedule is completed a patient cannot consume 20 pippali at a time is the capacity is gradually increased by Abhyas. Body has a natural behaviour to consume larger quantities on regular use of Abhyas which has a safer way to give large doses without any side effects.

c. Rasayana Prayoga⁵: Certain drugs are used to enhance immunity in the body. They are known as Rasayanas e.g. Amalaki, guduchi. But they exhibit the action provided the specific fashion mentioned in the text e.g. Yastimadhu powder with milk, Guduchi Swarasa with honey, Mandookparni Swarasa with honey, Shankhapushpi kalka with milk. Many other...
methods are mentioned in *Dravyaguna vigyana*. A short list is provided.

**Anupana**⁶ - Anupana is a special component of Ayurvedic pharmacology. The therapeutic arena of drug is enhanced with **Anupana**⁵ *Rithu harithaki, Choushata prahara pippali, Palasa jala, Viruddha ahara, Rasakriya*, Impregnation of medicinal herbs with flowers to induce purgation, *Aadraka rasa* application on *nabhi* to control diarrhea. Dipping feet in medicinal herbs. *Aushadha dharana* e.g. *Sahadevi, Langali*, Exposure to Sun after medication in *Leucoderma*, *Takradhara*, Collecting barley seeds from the excreta of horse, *Nethra Anjana* in *Jaundice*, *Rakshoghna karma* and *Vajikarana yoga*

**CONCLUSION:**

Treatment is balance / equilibrium among body elements it is achieved through two ways:

i. **Vridhdi**: Enhancement of depleted body elements.

ii. **Hraasa**: Reduction of increased body elements.

These two measures are exercised in a specific order to bring back the balance of body elements. Balance is health. Increasing of tissues is easier that is achieved by similar substances possessing similar properties etc. Reduction is a difficult task. It is arrived by using opposite substances possessing opposite properties. Now the properties help a lot to reduce the body elements. If you want to reduce fat in the body use the substances with opposite properties. This is called *guna Vishesha*. *Guna Vishesha* is extensively practised in Ayurveda. The balance of reduction and enhancement achieved through natural drugs and their properties without causing any undesirable effects in recipient is not only a science but also an art. The physician who is expert in this know how is called as *Bhishak*. Without the knowledge of *Dravyaguna none can become a successful physician.*

‘*Nighantuno vina vaidya*’

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