REVIEW ARTICLE

Review on Concept of Potency (Veerya) and its diversity in Ayurveda

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Abstract

The present communication details the concept of the Potency in Ayurveda. Potency certifies the applicability of the drug to be used in various conditions of the body both in healthy and unhealthy status. Any drug to act as a medicine essentially should be potent. Potency is an expression of the activity of a drug in terms of the concentration or amount of the drug required to produce a defined effect, whereas clinical efficacy judges the therapeutic effectiveness of the drug. Potency is a good preclinical marker of the therapeutic potential of a drug. Ayurveda mentions a term 'Veerya' in context of modus operandi of a drug which indicates the 'Potency of the drug'. The reviewestablishes that the concept of *veerya*(potency) in Avurveda is not just to indicate the strength of the drug. The variants in *veerya*namely limited mrudu(slow/dull)teekshna(quick/sharp),guru(heavy),laghu(light),snigdha(unctuous),ruksha(dry), Ushna(hot), sheeta(cold) making it as octa potency(ashtaveerya) or focusing only on ushna (hot) and *sheeta*(cold) making it as the dual potency (*dwividhaveerya*) or even in some contexts considering it as 15 types as per AcharyaNimi or even widening the concept of veerya(potency) by viewing it responsible for the 19 karma(pharmacological activities) as per Sushrutaopens the diversity or multiplicity in the drug action.

Keywords

Potency, Veerya, Ayurveda, Action, Effectiveness



Received08/02/16Accepted20/02/17Published 10/03/17

INTRODUCTION

Subsistence and Globalization of Ayurveda has been possible only due to a strong core, which is provided through its own fundamental principles. *DravyagunaVijnana*is one of the indispensable subjects in Ayurveda, which has put a limelight to every aspect of the drug actions in the body through a configuration called 'Rasa panchaka' (the five units of the drug). This includes the various attributes linked with the drug entering the body namely, Rasa (taste), Guna(attribute), Vipaka (final state of transformation), *Veerya*(Potency) and Prabhava(specificity in action)¹.

The reason and the capacity of a dravya to perform an action is $Veerya(potency)^2$. It is a property (karmukashaktipradayakaguna) in the *dravya*(drug), which makes the drug capable of exhibiting the therapeutic effectiveness in the body³. Veerva (potency) is considered to be one among seven *padartha*(matter of priority) in DravyaGunaVijnana, namely Dravva (substance). Guna (attribute), Rasa (taste), Vipaka (final state of transformation), Prabhava(specificity in action) and Karma (drug action $)^4$.

The present paper aims to collect the information about the view of potency in

Ayurveda and also its diversity which helps in clinical application thus defining the modus operandi of the drug.

MATERIALS AND METHODS Etymology (*Nirukti*) of the word veerya:

The etymology of the word *veerya*is from "*Veeravikrantaudhatu*". The strength or energy which is performing an activity via drug is *Veerya* (potency) of the drug⁵. The word '*Veerya*' in a noun form also represents manliness, valor, strength, power, energy, heroism, vigor, virility, efficacy ^{6,7}.

Etymology of word Potency:

The term *veerya* may be equivalent to the term 'Potency' in modern pharmacology which is a word derived from latin term *Potentia* meaning the strength/force/power.⁸

Characteristics of the

Veerya(Veeryalakshana)

Veerya(potency) is characterized by a Karma (drug action)⁹. It is also considered as one of the guna (property) in the drug similar to (taste). rasa gurvadiguna(attributes like heaviness), *vipaka*(final transformative state) and Prabhava(specific action)¹⁰. Karma (drug action) is a resultant performance of the drug. The property or unit of the drug which acts as an initiative and potential power for achieving a desired effect in the body is its potency¹¹. Thus Veerva does not just stand for any one entity, instead symbolizes the initiating force present in totality of a dravya (karmukashaktipradayakagunatatva). The term veerya(potency) signifies the shakti (energy), or *utsaha*(active participation) and the properties like *snigdha*(unctuousness), ruksha (dry) etc., possessed by the drug, thus indicating that veerya (potency) is a physical as well as biochemical energy in the drug responsible for the action of the drug and its effectiveness in the body. It is also said as essence of the drug which is either depressed after a certain period ¹² or is accentuated by certain processes.¹³

Concept of Veerya in Veda

The knowledge about the concept and applications of *rasa* (taste) *guna*(attribute) *veerya* (potency),*Vipaka*(final transformative state) and *prabhava*(specific action), of a *dravya* (substance) was established during the *Veda kala*¹⁴.Even in the vedic period, it was thought that drug acts because of its inherent power. This was termed as *Veerya*(potency)¹⁵.

Concept of Veerya in Samhitha:

The practitioners of Ayurveda in ancient times have tried to analyze the concept of

Veerya and its types in their own way. A detailed discussion by the commentators ensures about its practicability. Following points discussed are some as Veeryavada(theories about the concept of potency). The aims and objectives of all the proposed Veeryavada is not to create any controversy, but was an attempt made by the scientists of Ayurveda working in the field to decode the concept of *veerva* and project its relation with the drug so that its identity and applicability is clear.

I. *Guna Veerya Vada* (Theory proposing attributes are potency):

Two schools of thoughts are proposed under GunaVeeryaVada(Theory proposing Shakti attributes are potency). matraVeeryaVada(Theory proposing Energy AcharyaCharaka and is potency) by PaaribhashikaVeeryaVada(Theory proposing defined property of the substance is its potency) by AcharyaSushruta as well AcharyaVagbhata. *VriddaVagbhata* as opines that Shakti veeryavada(Theory proposing Energy is potency) is Shastriya(theoretical) the and *Paribhashikaveeryavada*is Laukika(practical)¹⁶.

A .Shakti veeryavada (Theory proposing Energy is potency):

In this school, potency is expressed as power. That power which enables action by the drug is the *veerya* of that *dravya*, and this power may be in form of *rasa* (taste), *vipaka*(final transformative state) etc. any among the five units of the dravya (drug).Among these factors singly or in combination dominate, become expressive and then be responsible for the drug action. *Utkrishtashaktisampannaguna* (Highly powered qualities) in the drug is considered as veerya. To add on, this theory also established one more data termed as Bahuveeryavadathat the drug possesses infinite potency and thus multifold actions is performed by a drug when in action. AcharyaCharaka is supportive to this theory¹⁷.Acharya Chakrapaniupholds the individuality of the concept of veerya(potency) and opines that it is something which is different from rasa (taste) Vipaka(final transformative state) or the Prabhava(specific activity) of a dravya (drug). Thus Shakti rupa(Form of power) of veerya is (potency) supported by Acharya Chakrapani¹⁸. As per the variation in the shakti(power) of the dravyaveerya (drug potency) can be categorized as three grades namely *teekshna* (highly potent /sharp), Madhya (medium/moderate) and Mrudu (less potent/mild). The grade of power and energy in the dravya decides the posology of the $dravya^{19}$.Prof. *Dwarakanath* opines that *veerya*(potency) conveys the idea of energy. The energy of a body is its capacity to do a work and total measure of energy is work. Energy may be potential or kinetic ²⁰.

B. Paaribhashikaveeryavada (Theory proposing defined property of the substance is its potency):

In this school potency is viewed as those physical properties in the drug which get active and be responsible for the activity in the body leading to therapeutic effectiveness in the drug. AcharvaSushruta and AcharyaVagbhatasupport this theory. This school has two opinions about the dominant properties in action. One opinion is named as *Dwividhaveeryavada*(Theory proposing the supremacy of dual qualities-hot and cold) where only *Sheeta*(cold) and Ushna(hot) qualities are emphasized as potency and another opinion popular is called Astavidhaveeryavada(Theory proposing the supremacy of eight qualities) where Guru (heavy), Laghu(light), Snigdha(unctuous), Ruksha(dry), *Mridu*(mild/slow), *Teekshna*(sharp/quick), *Sheeta*(cold), Ushna(hot) qualities are emphasized as potency²¹

B.1Dwividhaveeryavada:(Theoryproposing two diverse potencies)

As the principle per of Agnisomeeyatatva(Theory establishing the Predominance of Fire and water elements in Universe) even though the Universe is accepted to be panchabhautika (made up of the five primordial elements), Agni (fire) and Soma (water) tatva(elements) are considered to be more powerful. Soma (water element) has a role in helping in growth and development, and Agni (fire element) is the reason for the transformations occurring in it²².

Same principle is applied to the Purusha (Man) who is created by the combination of Sukra with (sperm) *saumyatatva*(predominant with water element) Artava(Ovum) and with (predominant agneyatatva with fire element). Similarly Veerya(potency) of a *panchabhauthikadravya*(substance formed by five primordial elements) too have a predominance of either fire or water elements and hence will reveal activities of either of the two. fire or water. Agneyadravya(Drug with fire predominance recognized to be possessed with is potency) Ushnaveerva(hot and Soumyadravya(Drug of water predominance) possesses Sheeta *veerya*²³. This principle makes it easy to select the specific type of a *dravya* (drug) for the specific type of a *Purusha*(man) both in normal and diseased status as after determining staana (equilibrium), *vruddi*(increase) and kshaya(decrease) of the dosha(primary units of the body) ²⁴.Substances with cold potency increase body strength, Kapha, Vata and are heavy for digestion. Substances with hot potency decrease the sperm activities, Kapha and Vata, increase Pitta and are light for digestion.²⁵ Drugs of hot potency can produce *bhrama*(giddiness), *kshut* (thirst); glani(bodily exhaustion and fatigue). *sweda*(perspiration), *daha*(burning sensation) asupakita(accelerated reactivity or and digestion). Drugs of cold potency, on the other hand, causes hladana(cheerfulness and pleasure of mind) *jeevana*(sustains life) stambhana(imparts strength, sturdiness and steadiness to the body) and cleanses (rakta)blood²⁶

B.2. Astavidhaveeryavada(Theory proposing eight diverse potencies)

Acharya Charaka²⁷ and Acharya Vagbhata²⁸ mention that during their times, the theory of viewing potency of a drug with eight diversities was also popular namely *Guruveerya* (heavy potency) for the drug composed of *prithvi*(earth element) and *jala* (water element), *Laghuveerya*(light potency) for the drug composed of *agni*, *vayu* and *akasa* (elements of fire, wind and space)

Snigdhaveerya(unctuous potency) for the drug composed of *jala* (water element), Rukshaveerya(dry potency) for the drug composed of vayu (wind element) Mriduveerya(mild/slow potency) for the drug composed of jala and akasha (elements of water and space) *Teekshnaveerya*(sharp/quick potency) for the drug composed of *agni* (fire); Sheetaveerya(cold potency) for the drug composed of prithvi and jala(elements of earth and water)*Ushnaveerya*(hot potency) for the drug composed of Agni(fire element).²⁹ .AcharyaSushrutaaccepts Picchila(slimy potency) for the drug composed of jala(water elements) and Vishadaveerya (potency of clarity) for the drug composed of prithvi and vayu(elements of earth and wind) ,in place of Guru (Heavy) and $potency)^{30}$. *Laghuveerya*.(light The commentators Chakarapani and Dalhana is opined it have that because AcharyaSushruta has adopted the words Guru (heavy) and Laghu(light) in context of Vipaka (final transformative status). feels AcharyaHarana Chandra that statement of AcharyaSushruta might be wrongly interpreted by the commentators. He also stated that no literatures have recorded *Picchila*(slimy) and Vishada (clarity) as Veerya. Definitely

AcharvaSushrutatoo had considered Guru (heavy) and Laghu (light) as Veerya(potency). Dr. P.V. Sharma, bridges the difference of opinion if any by mentioning the Picchilaguna that (Sliminess) can perform the action of guru (heaviness) and similarly the Vishadaguna (clearness) can perform the activities of *laghu*(lightness) in the body. Thus substantiation is done.³¹.

Astaveerya (eight potencies) had a wide popularity among physicians and the activity was illustrated as follows: Ushnaveerya pacifies kapha, vata; aggravates pitta, causes-Dahana-heat; Pacana-digestion of food, assimilation of *dhatu*,(body tissue) healing of (wound),*shopha* vrana (inflammatory pathology).*Murchana*-loss of consciousness, Swedana-sweat/diaphoresis Vamana-emesis. Virechana-purgation, Vilayana-absorption , Bhrama-giddiness, Trashna-thirst Glani-exhaustion, Laghutalightness, Avrashyadecreases the virility/Shukradhatu. Sheetaveerya pacifies pitta, aggravates kapha, vata. Causes-Vishyandana-stoping the flow, Sthirikaranastabilizing, Prasadana- purifying, Kledanamoistening, Jeevanalife promoting Stambhana-causing stasis, Guru- heaviness, Balva-strengthening, Snigdhaveerya pacifies vata. Causes-Snehana-oleation, Brahmanabulk increasing, Santarpanahealth promoting, Vajeekarana- increasing the sexual viguor, Vayastaapana- prevents aging. Rukshaveerya pacifies kapha and aggravates vatadosha.Causes- Sangrahanaaccumulation, Peedana- pressing effect, Virukshana- dryness, Upalepana-coating/ healing. Guruveerya pacifies vata. Causes-Brahmana- bulk increases, Upalepanaanointing, Laghuveerya pacifies Causes-Lekhanakaphadosha. ematiating. Mruduveery apacifies pitta dosha. Causes-Raktamamsaprasadanasaturates rakta/mamsa; helps inSusparsha-softening, Teekshnaveerya pacifies kapha. Causes-Sangrahacushana- constipative, Avadaranatearing, Sravana- secretion, Vishadaveerya pacifies kaphadosha. Causes-*Kledaacushana*-causing dryness Virukshana- drying Uparohana- promoting healing. Picchilaveerya pacifies vatadosha. Causes-Upalepana-anointing Puranapromoting healing. Brahmanabulk promoting, Samsleshanaslimy ,Vajeekarana- promoting sexual viguor.³² Following are the statements substantiating the view of astavidhaveeryavada where, out of twenty physical properties only the eight properties stand up as potency in world of

material

medica³³:Samagragunasarata(essence): The

eight physical properties if in a drug, they last longer not letting the destruction of their physical form even when they come in with digestive contact the enzymes; *Shaktutkarsha*(powerful) : The eight types of potencies are most powerful possessions of the drug;Vyavahaaramukhyata(Practicability):T he high esteem of eight types of potencies are practically understandable and SO clinically implementable; Bahulata (abundance)All among the eight type of potencies are capable of performing multiple or abundant activities in the body and thus effectiveness is appreciable; *Upayogita*(Utility): The clinical application of these eight type of potencies of drugs are utilized commonly in practice; *Prabhalata*(empowerment): The eight types of potencies can overpower the rasa (taste) etc. other qualities of a drug and show their performance; Eg. if there is teekshna (quick/sharp) potency in sweet tasting drug, the usual functions like upalepa(making a coating) and *kaphavardhaka*(increase in kapha) are not seen because here the sharpness wins over the taste Madhura rasa *yuktaikshurasa*because of sheetaveeryasupporting vatavriddhi(increase in vata)in the body; Katu rasa yuktapippali (pungent Piper longum) instead of increasing the pitta because of mrudusheetaveeryahelping in pitta shaman. AcharyaDalhana accepts that veerya (potency) denotes *Shakt*i (power or energy) in the drug which is explainable by using terms like sheetha -ushna etc. He accepts the theory of multiple veerya enunciated by AcharyaCharaka. Dalhana notes that although there is no third category but sita and ushna according to the predominance of Soma and Agni principle, practically there is a scholarly group telling that *Veerya*(potency) can be on the borderline which is termed as *sadharana* representing the veervastatus as anushnasheeta.(common/intermediate)³⁴.

b.3. ShadvidhaVeeryavada: (Theory proposing six diverse potencies)

AcharvaPrivavrat Sharma proposed six potencies of the drug namely Guru (heavy), *laghu*(light) ,*Ushna*(hot) ,*snigdha*(unctuous) and *ruksha*(dry) which are instrumental in increase and decrease of dosha, Guru (heavy) is capable of Bruhmana(Bulk promoting) . Laghuveeryaforlanghana (ematiating), *Snigdhaveerya*for *snehana*((oleation), *rookshaveerya*for rookshana (drying) sheetaveerya for *sthambhana*(coagulation) and Ushnaveeryafor svedana (Sudation)³⁵.

II.Karmaveeryavada:(Theoryproposingexhibitedactivityofsubstance is its potency):

AcharyaBadanthaNagarjuna proposed that action itself is a character of its potency. He has accepted the not *Gunaveeryavada*(Theory proposing attributes are potency). He observes that, if predominant of rasadi (five units of drug) or guna (physical property) is accepted as veerya (potency), in spite of presence of rasa (taste) and guna(property) in the drug, the action exhibited is different and not related to either taste or the property of the drug. Also, it is observed that though rasa (taste) and guna(property) are present in a drug, the karma (drug activity) may not be performed by the drug; instead when there is absence of *rasa* (taste) and *guna*(property) karma (drug activity) is performed -eg. *Mantra*. He believes that drug can perform an activity without having any relation torasadi (five units of drug). Hence the activity exhibited by the drug has to be considered as *veerya*(potency). He has has not enumerated the number of *veerva* (potency) with regards to its karma (drug activity) but believes *veerya* present with many diversities.³⁶ This theory is supported by AcharyaNimi, diversities of *dravyaveerya*(drug potencies) are fifteen in number, based on the drug action with

relation its basic to combination.1.Adhobhagahara veerva (purgation effect) of the drug predominant with and earth elements,2.Urdhwabhaga water veerya(emesis effect) of the drug predominant with fire and wind elements; 3. Ubhayatobha gaharaveerya(bidirectional effect where dosha move out both by emesis and purgation)of the drug predominant with elements of earth, fire and wind: 4. Sangrahikaveerya(cumulative effect) of the drug with predominant elements of 5. earth and wind; Samshamanaveerya(subsiding effect) of the drug with predominant with elements of wind,water and earth; 6.Deepanaveerya (appetizer effect) of the drug predominant with elements of earth and fire; 7. Jivaneeyaveerya (reliving effect)of the drug with predominant elements of earth and water.8.

Pranaghnaveerya(life threatening effect) of a drug with predominant wind and fire;9. Madanaveerya(mind influencing effect) of the drug elements of wind with and fire;10.Shitikarana veerya(chilling effect) of the with predominant drug water element.11.Shothakara *veerya*(inflammatory effect) of the drug with elements of earth and water;12.Shotagna veerva (anti-inflammatory effect) of the drug with predominant elements of ether and wind; 13. Pachana veerya(digestive effect) of the drug with predominant elements of fire; 14.Darana veerya(stabilizing effect) of the drug with predominance of wind and fire elements.;15..Ropanaveerya(healing effect)of a drug with predominant elements of earth,water,wind.³⁷

Veerya (potency) with 19 diversities in form of actions:

Aushadhakarmukatha of the dravya, in all circumstances is because of the veerya only .eg---vamana(emesis), virechana(purgation) ubhayabhagahara(birectional movement of vitiated dosha)karma, samshodhana(purifaction),

samshamana(pacification),

agnideepana(appetizer) sangrahana (cumulative), peedan(pressing effect), lekhana(scraping effect) brumhana(bulk promoting effect),Rasayana(rejuvenating effect), vajeekarana(increase of libido), swayathukara(inflammatory

effect),*swayathuvilayana*(anti-inflammatory effect),*dahana*(burning effect), *maadana*(confused and influencing brain) *darana* (stabilizing), *pranaghna*(life threatening),*vishaprashamana*(pacification of toxicity) etc.Also*Veerya*(potency) due to its power can dominate over *Rasa* (taste), *Guna*(property) etc factors in the *dravya* (drug), and thus exhibit its action. ³⁸

III.*Dravyaveeryavada*: (Theory proposing the substance in its form is its potency):

Most of the modern scholars of the field like Dr.YadavajiTrikamji*Acharya*believe that *dravyautkrishtaamsha*(Active principle) is veerya (potency) and that is responsible forperformanceofanaction³⁹.AcharyaPriyavrataSharmaconsiders active principle as a seat ofpotency. He believes that the potency inactive principle is transferred during thedifferent procedures in pharmaceuticals. Theprocess of transfer of the potency is calledveeryasankranthi (transference of power).40 As per ShivadasaSen the dravya ispanchabhauticand

dravyagatasaratishayarupaamsha(the

essence) is called as *veerya*⁴¹.He also considers *Veerya*(potency) may be *Sahaja*(natural form) or *Kritrima*(artificial form).Examples of

Guduci(Tinosporacordifolia)andGuduciSatwa(concentrate)

,Palasa(Buteamonosperma) and its Kshara(alkali) etc can be considered where the source of drug is transformed to a new form which is acquired by processing 42 . Also it is observed that whatever process is undertaken for the drug, like kashaya(decoction), gritha (ghee), taila(oil) etc, all those have a definite expiry time mentioned in the classics after which it loses its potency and does not work up to the expectation. Selectivity of the part of the drug also is important issue as the selected part alone will contain maximum potency forspecifickarma(action).Eg.,Dashamoola(ten roots),Triphala(threefruits),Ashokatwak(Bark ofSaracaasoka)etc.43Saracaasoka)

DISCUSSION

Whatever the substances do, whether by dravyaPrabhava (virtue of their nature) or gunaprabhavat (by virtue of their qualities) or by Dravya-Gunaprabhavat by (virtue of their substantive and qualitative nature) in any given time, in any given place (system or organ), having administered in a given mode, with a given result in view is their action, whereby they act is the potency, wherein they act is the place, when they act is the time, how they act is the mode, what they achieve is the result⁴⁴. There cannot be any action in the body in absence of veerya of the drug. The effectiveness of the drug may be wholesome or unwholesome, but the reason behind is potency of the drug. The documentation in literature since the times of Veda till date about the specificity of the time of collection of the herbs, use of specific parts, the time of administration, different types of processing, preservation techniques, use of different utensils for storage⁴⁵ preparation of different extracts, isolation of the active principles etc., all

indicates the recognition of increased potency of the drug.

CONCLUSION

In spite of complimentary inclination of scholars of analyzing potency varies either in form of Guna(drug property), Karma(drug activity) or as dravya(drug) itself, they have a definite understanding that potency irrespective of its form is essential to reach the target in the body. To achieve the result in form of karma (therapeutic action), the very essential need is that the drug should be potent and thus the relation between the Veerya (potency) and Karma (activity) of the drug is established. Potency though diverse, is a deciding factor to achieve the drug action.

REFERENCES

- S.C Dhyani,Rasa panchaka(Ayurvedic Principles of Drug Action),first edition, 1994,Chaukhambha Sanskrit series office,Varanasi, p 3.
- Agnivesha, Charaka Samhita, Charaka and Dridabala Revisers, ChakrapaniDutta, Commentator Ayurveda Deepika Commentary, YadavajiTrikamjiAcharya, Editor, Chaukhambha SanskritSansthan, Varanasi, 5th edition, 2001, pp 147-152/738
- DwivedhiVishwanath, AushadhaVijnanaShastra (Ayurvedic Pharmacology),Vaidyanath Ayurveda Bhavan ltd, Nagpur 2nd edition, 1980
- 4. Priyavrit Sharma,
 DravyagunaVijnanan,Vol. I, Basic
 Concepts,ChaukhambhaBharatiAcad
 emy,Varanasi, Reprint -2004,Page
 7/426
- J.K Ojha, (2001) ,A Hand book of Dravyaguna,TheChaukhambha Sanskrit Pratishthan, Delhi,First edition, Pp49/407
- 6. Sir M.Monier Williams, A Sanskrit English

Dictionary,MotilalBanarasidas Publishers Private Limited,Delhi,reprint1999,1006/133 3)

- 7. Raja Radhakanthadeva,4th
 Volume,Shabdakalpadruma,Nag
 Publishers,Delhi,reprint1987 page
 474.
- 8. Shastry,J.LN,DravyagunaVijnana,(F
 undamental Principles of
 Pharmacotherapeutics in
 Ayurveda),ChaukhambhaOrientalia,
 Varanasi,Reprint 2009,page 154/440.
- 9. Agnivesha, CharakaSamhita, Charaka and DridabalaRevisors, ChakrapaniDutta, Commentator,, Ayu rvedaDeepikaCommentary, YadavjiTrikamjiAcharya, Editor, Chaukhambha SanskritSansthan, Varanasi, 5th edition, 2001, pp 138//738.
- 10. J.K Ojha, (2001) ,A Hand book of Dravyaguna,TheChaukhambha Sanskrit Pratishthan, Delhi,First edition, Pp50/407
- 11. K.Nishteshwar, Text of Dravyguna, Chapter Virya, ChaukhambhaSurbharathiPrakashan, Varanasi, first edition 2007.page 53/670

- 12. Prof.D.S.
 - LucusDravyagunaVijnana(Basic

principles of Dravyaguna, Vol.I, Chapter

Viryavijana,ChaukhambhaVishwaBh arathi, Varanasi, First edition, 2006 ,p 210/455.

- 13. Priyavrat Sharma, Dalhana and his
 comments on drugs,
 MunshiramManoharlal Publishers
 pvt.ltd. first edition, 1982 pp 95/293
- 14. Priyavrat

SharmaDravyagunavijnana, Volume IV, vedic plants and history of Dravyaguna) ,Chaukhambha Sanskrit Sansthan Varanasi reprint 2007,, page21/392.

- 15. PriyavratSharma, Editor, History of Medicine in India, Dravyaguna (Pharmacology): origin and development Indian National Science Academy, New Delhi, first print 1992. page 393/527.
- 16. Priyavrit Sharma,
 DravyagunaVijnanan,Vol I, Basic
 Concepts,ChaukhambhaBharatiAcad
 emy,Varanasi, Reprint -1998,Page
 222/426
- 17. Shastry, J.LN, DravyagunaVijnana, (F undamental Principles of Pharmacotherapeutics in

Ayurveda), Chaukhambha Orientalia,

Varanasi, Reprint 2009, page 161/440.

- 18. Shastry, J.LN, DravyagunaVijnana, (F undamental Principles of Pharmacotherapeutics in Ayurveda), ChaukhambhaOrientalia, Varanasi, Reprint 2009, page 159/440.
- 19. J.K Ojha, (2001) ,A Hand book of Dravyaguna, TheChaukhambha Sanskrit Pratishthan, Delhi,First edition, Pp52/407
- 20. K.Nishteshwar, Text of Dravyguna, Chapter viryaChaukhambhaSurbharathiPraka shan, Varanasi, first edition 2007.page 55/670.
- 21. Shastry,J.LN,DravyagunaVijnana,(F undamental Principles of Pharmacotherapeutics in Ayurveda),ChaukhambhaOrientalia, Varanasi,Reprint 2009,page 162/440.
- 22. Priyavrat Sharma,Dravyaguna vijnana,part4, vedic plants and history of dravyaguna) , Chaukhambha Sanskrit Sansthan varanasi2nd edition 1977, page16
- 23. Prof.D.S. Lucus, DravyagunaVijnana (Basic principles of Dravyaguna, Vol.I , Chapter ViryaVijana,ChaukhambhaVishwaB

harathi, Varanasi, First edition, 2006 ,p 217/455.

24. Sushruta,SushrutaSamhita with NibandhaSangraha commentary of Dalhanacharya , edited by VaidyaYadavjiTrikamjiAcharya and Narayana ram Acharyakavyateertha, Chaukhambha orientalia,Varanasi,7th edition 2002.

Page 183 /824,

- 25. Shastry,J.LN,Dravyagunavijnana,(Fu ndamental Principles of Pharmacotherapeutics in Ayurveda),ChaukhambhaOrientalia, Varanasi,Reprint 2009,page 164,165/440.
- 26. Vagbhata, AstangaHridayam, Sutrasta na, chapter 9, verse 18,19, Dr.KanjivLochan, Traslator, Chaukhambha Publications, New Delhi, reprint 2011.page 134.
- 27. Agnivesha, Charaka Samhita, Charaka and DridabalaRevisors, Chakrapanidutta, Commentator,, Ayur vedaDeepika commentary, YadavajiTrikamjiAcharya, editor, Chaukhambha SanskritSansthan, Varanasi, 5th edition, 2001, pp 147-152/738
- 28. Vagbhata, Astanga Hridayam, Sutrasta na, chapter 9, verse 1, ,

DrKanjivLochan, Traslator, Chaukhambha Publications, New Delhi, reprint 2011.page 133/416.

29. Prof.D.S.Lucus,

DravyagunaVijnana(Basic principles of Dravyaguna, Vol.I , Chapter viryavijana,ChaukhambhaVishwaBh arathi, Varanasi, First edition, 2006 ,p 219/455.

- 30. Sushruta, SushrutaSamhita with NibandhaSangraha commentary of Dalhanacharya , edited by VaidyaYadavjiTrikamjiAcharya and Narayana ram Acharyakavyateertha 41 chapter 41,Chaukhambha orientalia,Varanasi,7th edition 2002. Page 163 /824,
- 31. Priyavrit Sharma,
 DravyagunaVijnanan,Vol I, Basic
 Concepts,ChaukhambhaBharatiAcad
 emy,Varanasi, Reprint -1998,Page
 226/426
- 32. Shastry, J.LN, Dravyagunavijnana, (Fu ndamental Principles of Pharmacotherapeutics in Ayurveda), ChaukhambhaOrientalia, Varanasi, Reprint 2009, page 164, 165/440.
- 33. Priyavrit Sharma,DravyagunaVijnanan,Vol I, BasicConcepts,ChaukhambhaBharatiAcad

emy, Varanasi, Reprint -1998, Page 225/426

- 34. Priyavrat Sharma, Dalhana and his comments on drugs,
 MunshiramManoharlal Publishers pvt.ltd. first edition, 1982 pp 96,97/293
- 35. J.K Ojha, (2001) ,A Hand book of Dravyaguna,TheChaukhambha Sanskrit Pratishthan, Delhi,First edition, Pp51/407
- 36. Prof.D.S. Lucus,
 Dravyagunavijnana(basic principles of Dravyaguna, Vol.I , Chapter ViryaVijana,ChaukhambhaVishwaB harathi, Varanasi, First edition, 2006 ,p 212/455.
- 37. Prof.D.S. Lucus,
 Dravyagunavijnana(Basic principles of Dravyaguna, Vol.I , Chapter Viryavijana, ChaukhambhaVishwaBh arathi, Varanasi, First edition, 2006 ,p 218/455.
- 38. Sushruta,SushrutaSamhita with
 NibandhaSangraha commentary of
 Dalhanacharya , edited by
 VaidyaYadavjiTrikamjiAcharya and
 Narayana ram Acharya,
 Kavyateertha,
 ChaukhambhaOrientalia,Varanasi,7t
 h edition 2002. Page 175 /824,

39. Shastry, J.LN, DravyagunaVijnana, (F undamental Principles of Pharmacotherapeutics in Ayurveda), ChaukhambhaOrientalia, Varanasi, Reprint 2009, page 154/440.
40. PV

Sharma,DravyagunaSutram,Veeryap rakarana, Chaukhambha Sanskrit sansthan Varanasi, reprint 2009,page 79/159.

- 41. Shastry, J.LN, Dravyaguna Vijnana, (F undamental Principles of Pharmacotherapeutics in Ayurveda), ChaukhambhaOrientalia, Varanasi, Reprint 2009, page 161/440.
- 42. K.Nishteshwar, Text of Dravyguna, Chapter

viryaChaukhambhaSurbharathiPraka shan, Varanasi, first edition 2007.page 58/670.

- 43. Prof.D.S. Lucus, DravyagunaVijnana(Basic principles of Dravyaguna, Vol.I , Chapter ViryaVijnana,ChaukhambhaVishwa Bharathi, Varanasi, First edition, 2006 ,p 210/455.
- 44. Agnivesha,CharakaSamhita, Charaka and DridabalaRevisor, ChakrapaniDutta,Commentator,,Ayu rvedaDeepika commentary, YadavajiTrikamjiAcharya, Editor,

Chaukhambha SanskritSansthan, Varanasi,5th edition, 2001,pp 138//738.

45. DwivedhiVishwanath,AushadhaVijn anaShastra (Ayurvedic Pharmacology),Vaidyanath Ayurveda Bhavan ltd, Nagpur 2nd

edition 1980,238-240/838.