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REVIEW ON SHIROVIRECHANIYA DRAVYAS W.S.T APAMARGA TANDULIYA ADHYAYA OF CHARAKA SAMHITA

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ABSTRACT

The Apamarga Tanduliya chapter had propounded by Acharya Agnivesha. Shirovirechana is the best therapeutic procedure for the management of head and neck disorders. These Shirovirechana Gana drugs have possibility to passive absorption directly through the cells of the membrane. Lipid soluble substances have greater affinity for passive absorption through the cell walls of nasal mucosa. The cilia of the olfactory cells and perhaps the portions of the body of the olfactory cells contain relatively large quantities of lipid materials. The non polar hydrophobic molecules diffuse through the lipid bilayer of the plasma membrane, into and out of cells. Such molecules include oxygen, carbon dioxide, nitrogen gases, fatty acids, steroids, and fat soluble vitamins. Further the drug absorption is enhanced by local massage and fomentation. The neurological path is concerned with the olfactory stimuli. The olfactory nerve differs from other cranial nerves in its close relation with the brain. The peripheral olfactory nerves are

chemo receptor in nature. The olfactory nerves are connected with the higher centres of the brain, ie limbic system consisting mainly of amygdaloidal complex, hypothalamus, epithelium, anterior thalamic nuclei parts of basal ganglia. So the drugs administered through the nose stimulate the higher centres of the brain which shows the action on regulation of endocrine and nervous system functions. In this present review the Shirovirechana drugs

were selected from the second chapter of *Charaka Samhita Sutrastana* viz; Dehusked *Apamarga* seeds, *Pippali, Maricha, Vidanga, Shigru, Sarshapa, Tumburu, Ajaji, Ajagandha(Ajamoda), Peelu, Ela, Harenuka, Prithivika, Surasa, Shweta Aparajita, Kutheruka, Phanijjaka, Shirisha Beeja, Lashuna, Haridra, Daruharidra, Saindhava Lavana, Sauvarchala Lavana, Jyotishmati, Shunthi. Further scope of study is to scientifically evaluation and cellular level absorption of these drugs in vitro and in vivo parameters.*

KEYWORDS: Apamarga Tandula, Charaka Samhita, Shirovirechana Dravyas, errhine therapy.

INTRODUCTION

The dehusked seeds of Achyranthes aspera are known as Apamarga Tanduliya. These seeds are used in the Nasya Karma ie errhine therapy. The other drugs of this therapy are; Pippali, Maricha, Vidanga, Shigru, Sarshapa, Tumburu, Ajaji, Ajagandha(Ajamoda), Peelu, Ela, Harenuka, Prithivika, Surasa, Shweta Aparajita, Kutheruka, Phanijjaka, Shirisha Beeja, Lashuna, Haridra, Daruharidra, Saindhava Lavana, Sauvarchala Lavana, Jyotishmati, Shunthi. If the vitiation of a particular Dosha is predominant the order of performing Panchakarma therapies can be altered. Ex: As Pitta is predominant during autumn season Virechana is advised. Similarly Basti (Medicated enema therapy) is indicated in the beginning of rainy season. The rationality in explaining Shirovirechana Dravya initially may be the head is the most important organ of the body^[1] and *Shirovirechana* is the best therapeutic procedure for the management of head and neck disorders. Whenever there is no disease in the root of a tree, that tree grows properly, similarly the head should be disease free for proper growth and development of the entire body. Among all the drugs in errhine therapy the Apamarga^[2] is considered as best one. Thus it is mentioned initially. It is not mandatory to start treatment only after obtaining the entire list of drugs mentioned in the classics, one ca use as per the disease condition. [3] The above drugs can be used as Nasya (Errhine therapy) in conditions like Shirogaurava(Heaviness in the head), Shirashula(Headache), Ardhavabhedaka(Migraine), Krimi(Infectious *Peenasa*(Coryza), diseases head), Apasmara(Epilepsy), Ghrananasa(Anosmia), Pramohaka(Fainting).

MATERIAL AND METHODS

• The concepts, assessment and literary survey of the *Shirovirechana* drugs was done on the basis of *Ayurvedic* texts books and digital data.

AIMS AND OBJECTIVES

- The aim of the present work is to highlight the concept of medicinal herbs of errhine therapy and their impact on nervous system.
- The objective is to elaborate the concept of medicinal herbs of the *Shirovirechana Gana* based on the different *Ayurvedic Nighantu* texts and of digital data.

DISCUSSION

In the *Shirovirechana* procedure the medicines are instilled through the nostrils. Considering the therapeutic efficacy, it is used to treat a wide spectrum of diseases ranging from headache to infertility. As per *Acharya Vagbhata* nose is the entrance gate of the head and it is directly connected to the brain and all the diseases related to the head region vanishes by this errhine therapy. Nose and the brain are separated by the cribriform plate and above the cribriform plate there is little extension from the brain that is known as olfactory bulb that sends its projections into the olfactory epithelium. The olfactory epithelium receives the impulse from the odour and send it to the olfactory nerves in the olfactory bulb which further send the signals to the mitral or tufted cells of brain. Hence the nose is directly connected to the brain. The mode of formulation used for *Nasya* include *Tila*, *Ghrita*, *Swarasa*, *Kwatha*, *Kshira*, *Jala*, *Churna*, *Madhu*, *Mamsarasa*. *Taila* is considered as best *Nasya Dravya* becouse *Taila* doesn't disturb the pH of nasal mucosa, whereas *Ghrita*(Ghee) is alkaline and causes changes in the pH.

Drug review based on the classical texts

Dehusked *Apamarga* seeds^[5]

Botanical Name- Achyranthes aspera Linn, Family- Amaranthaceae.

Pharmacological Actions- The *Apamarga* is *Tikta*(Bitter), *Ushna Virya*(Hot in potency), *Katu*(Pungent), *Sangrahi*(Absorbent), *Vamaka*(Causes vomiting), subside *Kapha Dosha*, *Arsha*(Haemorrhoids), *Udararoga*(Diseases of abdomen), *Kandu*(Itching), *Amadosha*(Toxins), *Raktadosha*(Blood disorders).

Pippali^{[6],[7],[8]}

Botanical Name- Piper longum Linn, Family- Piperaceae

Pharmacological Actions- *Pippali* is *Dipana*(Appetizer), *Vrishya*(Aphrodisiac), *Madhura Vipaka*(Sweet after digestion), *Rasayana*(Vitalizer), It is *Anushna*(neither heat nor cold), *Katu* (Pungent in taste), *Snigdha* (Secretes oils), *Vata-Kapha shamaka*, *Laghu*(Light), *Rechani*(Acts as mild laxative). It cures *Shwasa*(Dyspnoea), *Kasa*(Cough),

Udara(Abdominal disorders), Jwara(Fever), Kustha(Skin diseases), Prameha (Urinary disorders), Gulma(Intestinal disorders), Arsha(Haemorrhoids), Pleeha(Splenic diseases), Shoola(Colic), *Maruta*(Flatus), Ardra Pippali(Wet Pippali) is Kaphakara, Snigdha(Demulcent), *Sheetala*(Cold), *Madhura*(Sweet), Guru(Heavy), Pitta Shamaka(Alleviates Pitta). Consumption of Pippali with Guda alleviates Meda(Obesity) and Kapha, Shwasa(Dyspnoea), Kasa(Cough), Jwara(Fever), *Vrishya*(Aphrodisiac), Medhya(Brain tonic), Agnivardhaka(Appetizer), *Jeernajwara*(Chronic fever). Agnimandyahara(Alleviates loss of appetite).

Maricha [9],[10] - Botanical Name- Piper nigrum Linn, Family- Piperaceae

Pharmacological Actions- Maricha is Katu(Pungent in taste), Teekshna(Penetrating), Dipana(Appetizer), Kapaha-Vatahara(Alleviates Kapha and Vata), Ruchikaraka(Tasty), Ushna(Hot in potency), Pittakara, Rooksha(Drying), cures Shwasa(Dyspnoea), Shoola(Colic), Krimi(Worms), Shukra Nashaka(Decreases semen), Agnijanaka(Improves appetite). Ardra Maricha(Wet Pepper) is Madhura Vipaka (Sweet after end of digestion), Natiushna(Not much heat), Kinchit Teekshna Guna(Mild penetrating action), Shleshma Praseki(Mucogenic), Apittalam(Does not increase Pitta).

Vidanga^[11]- **Botanical Name**- *Embelia ribes* Burm. f. **Family**- Myrsinaceae **Pharmacological Actions**- It is *Katu Vipaka*(Pungent at post digestive effect), and *Krimi Nashaka*(Alleviates worms infestation). It Subsides *Kapha* and *Vata Doshas*, *Shoola*(Pain), *Anaha*(Flatulence), *Arti*(Spasmodic pain).

Shigru^[12]- Botanical Name- Moringa pterygosperma Gaertn, Family- Moringaceae. Pharmacological Actions- The Shigru is Katu(Pungent), Tikta(Bitter). It alleviate Kapha, Vata Doshas, Krimi(Worms), Ama(Toxins), Visha(Poison), Meda(Obesity), Vidradhi(Edema), Pleeha(Speenomegaly), Gulma(Visceral organ diseases).

Sarshapa^[13]- Botanical Name- Brassica campestris Hook & Thoms,

Family- Brassicaceae

Pharmacological Actions- *Sarshapa* seeds are *Katu*(Pungent), *Tikta*(Bitter), and *Katu Vipaka*(Pungent in post digestive effect). It is *Teekshna*(Penetrating), *Ushna*(Hot in potency), subsides *Kapha-Vata*, promotes *Raktapitta*(Haemorrhage), *Agnivardhana*(Increases appetite), *Rakshakara* (Casts away evil spirits), cures *Kandu*(Itching), *Kustha*(Skin diseases), *Krimi*(Worms), *Graha*(Evil spirits).

Tumburu^[14] - **Botanical Name**- *Zanthoxylum alatum* Roxb, **Family**- Rutaceae **Pharmacological Actions**- The *Tumburu* is *Katu*(Pungent), *Teekshna*(Penetrating), *Ushna Virya*(Hot in potency), *Kapha Vatashamaka*(Subside *Kapha* and *Vata Doshas*), *Shulahara*(Analgesic), *Agnidipaka*(Appetizer). It alleviate *Udara Roga*(Abdominal diseases), *Adhmana*(Distention of the abdomen), *Krimiroga*(Worms).

Ajaji^[15]- Botanical Name- Cuminum cyminum Linn Family- Apiaceae

Pharmacological **Actions-**Ruksha(Drying), *Katu*(Pungent), Ushna(Heat), Sangrahi(Absorbent), Dipana(Appetizer), *Laghu*(Light), Pittala(Increases Pitta), Medhya(Brain tonic), Garbhashaya Vishuddhi Krit(Purifies uterus), Jwaragna(Anti-pyretic), Pachana(Digestants), Vrishya(Aphrodisiac), Balya(Strength promoter), Ruchya(Taste promoter), Kapha-Vata Shamaka(Alleviates excess Kapha and Vata), Chakshushya(Good for Cures Vata, Admana(Abdominal distention), Gulma(Intestinal growth), Chardi eyes), (Vomiting), *Atisara*(Dairrhoea), *Pitta* and *Agnivardhaka*(Increases appetite and Pitta Dosha).

Ajagandh^[16]- Botanical Name- Apium graveolens Linn, Family- Apiaceae

Pharmacological Actions- It is *Katu*(Pungent in taste), *Teekshna*(Penetrating action), *Ushna*(Hot in potency), *Dipyaka*(Appetizer), *Kapha-Vatahara*(Subsides *Kapha* and *Vata Dosha*). *It is Vidahi*(Causes burning sensation), *Hridya*(Cardio tonic), *Balakara*(Promotes strength), *Laghu*(Light), *Netramaya*(Relieves eye diseases), Alleviate *Chardi*(Vomiting), *Hikkka*(Hiccough).

Peelu^[17]- Botanical Name- Salvadora persia Linn, Family- Salvadoraceae

Pharmacological Actions- *Peelu* is *Tikta*(Bitter), *Pittakara*(Aggravates *Pitta Dosha*), *Sara*(Mild laxative), *Katu Vipaka*(Pungent at post digestive effect), *Teekshna*(Penetrating), *Katuka*(Pungent in taste), *Kapha Vata Jit*(Subsides *Kapha* and *Vata Dosha*)

Ela^{[18],[19],[20]}- Botanical Name- Elettaria cardamomum Maton,

Family- Scitaminaceae

Pharmacological Actions- The small variety of *Ela* alleviates *Kapha rogas*, *Shwasa*(Dyspnoea), *Kasa*(Cough), *Arsha*(Haemorrhoids), *Trishna*(Thirst), *Chardi*(Vomiting), *Mutrakrichra*(Dysuria). It is *Katu Rasa*(Pungent in taste), *Sheeta Virya*(Cold in potency), *Laghu*(Light), *Vatahara*(Decreases *Vata*).

Harenu^[21]- Botanical Name- Vitex agnus-castus Linn, Family- Verbenaceae
Pharmacological Actions-It is Ushna Virya(Hot in potency), Tikta(Bitter), Kapha
Nashak(Subsides Kapha Dosha), Agnidipana(Appetizer), Pachana(Digestive), Medhya(Brain tonic), Krimighni(Subsides worm infestation), Garbhapatakari(Induces abortion).

Prithivika^[22]- **Botanical Name-** *Amomum subulatum* Roxb, **Family-** Zingiberaceae **Pharmacological Actions-** It is *Agnidipana*(Appetizer), *Pachana*(Digestive), *Ruksha*(Dry), *Kaphanashaka*(Subsides *Kapha Dosha*), *Pittavardhaka*(Induces *Pitta*), *Mukhadaurgandhya Nashaka*(Relieves bad smell from the mouth), *Garbhasravakaraka*(Induces uterine secretions).

Surasa^[23]- Botanical Name- Ocimum sanctum Linn, Family- Labiatae.

Pharmacological Actions- The *Tulasi* is *Laghu*(Light), *Ushna Virya*(Hot in potency), *Ruksha*(Dry), *Ruchikaraka*(Promotes taste), *Agnidipaka*(Appetizer). It alleviate *Krimi*(Worms).

Shweta Aparajita^[24]- **Botanical Name-** *Clitorea ternateae* Linn Family- Fabaceae **Pharmacological Actions-** It is *Katu*(Pungent) *Tikta*(Bitter), *Kashaya*(Astringent), in taste. It is Medya(Brain tonic), Sheeta Veerya(Cold in potency), Kanthya(Good for voice), Sudrusthiprada(Improves vision), Kusthagna(Cures skin diseases), Mutra Dosha *Hara*(Alleviates urinary disorders), Trodosha shamaka(Subsides Vata-Pitta-Kapha). Arshogna(Cures haemorrhoids), Vrina(Heals wounds), Shothagna(Edema), Vishagna(Poisonous effects). It is Katu Vipaka(Post digestive effect), Smriti Buddhi prada(Promotes memory and intellect).

Kutheraka^[25]-Botanical Name- *Orthosiphon spiralis* Linn Family- Lamiaceae Pharmacological Actions- The *Kutheraka* is *Sheeta Virya*(Cold in potency), *Tikta*(Bitter). It alleviate *Visha*(Poison), *Raktadosha*(Blood diseases), *Kapha* diseases.

Phanijjaka^[26]- Botanical Name- *Origanum majorana*, Family- Lamiaceae
Pharmacologgical Actions- It is *Katu*(Pungent), *Tikta*(Bitter), *Katu Paki*(Pungent at post digestive effect), *Ushna Virya*(Hot in potency), *Laghu*(Light), *Teekshna*(Sharp), *Ruksha*(Dry). It is *Hridra*(Cardio tonic), *Ruchya*(Appetizer), *Sugandhi*(Aromatic).

Shirisha Beeja^[27]- Botanical Name- Albizia lebbeck Linn Family- Mimosaceae

Pharmacological Actions- Shirisha is Madhura(Sweet), Tikta(Bitter), Anushna(Slightly hot in potency), Laghu(Light). It subsides Tridoshas, Shotha(Edema), Visarpa(Herpes), *Kasa*(Cough), *Vrina*(Ulcers), *Vishapaha*(Poisonous effects).

Lashuna^[28]- Botanical Name- Allium sativum Linn, Family- Liliaceae

Pharmacological Actions- The roots of *Rasona* are *Katu*(Pungent), leaves are *Tikta*(Bitter), Stem is Kashaya(Astringent), Stem apex is Lavana(Salty), seeds are Madhura(Sweet). Rasona is Brimhana(Nourishing), Vrishya(Aphrodisiac), Snigdha(Demulcent), Ushna(Heat), Pachana(Digestive), Sara(Laxtive), Balakara(Tonic), Varnakara(Improves complexion), Medhahita(Good for memory), Netra(Good for eyes), Rasayana(Vitalizer). Cures Hridriga(Heart diseases), Ajirna(Indigestion), Jwara(Fever), Kukshi Shoola(Abdominal pain), Vibandha(Constipation), Gulma(Intestinal growths), Aruchi(Loss of taste), Kasa(Cough), Shopha(Edema), Durnama(Haemorrhoids), Kustha(Skin diseases), Analasada(Stimulates appetite), Jantu(Worms), Vata diseases, Shwasa(Dyspnoea), Kapha diseases.

Haridra^[29] Botanical Name- Curcuma longa Linn, Family- Scitaminaceae-**Pharmacological Actions-** *Haridra* is *Katu*(Pungent), *Tikta*(Bitter) in taste, *Ruksha*(Drying), Ushna(Heat), subsides Kapha-Pitta, It is Varnya(Improves complexion), It Cures Twak Dosha(Skin diseases), Aruchi(Dystaste), Meha(Urinary disorders), Rakta(Blood disorders), Shotha(Edema), Pandu(Anemia), Vrina(Heals the wounds or ulcers), Kandugna(Cures itching sensation).

Daru Haridra^[30]- Botanical Name- Berberis aristata DC, Family- Berberidaceae.

Pharmacological Actions- The Daru Haridra is Tikta(Bitter), Ruksha(Dry), Ushna Virya(Hot in potency). It cure Vrina(Wounds and ulcers), Prameha(Urinary disorders including diabetes, diseases of Karna(Ear), Netra(Eyes), *Mukha*(Oral cavity), Kandu(Itching).

Lavana^{[31],[32]}-Pharmacological Saindhava **Actions-It** is Suswadu(Palatable), Vrishya(Aphrodisiac), Hridya(Good for heart), Tridoshanashaka(Subsides all the three Doshas, Vata, Pitta and Kapha Doshas). Laghu(Light), Anushna(Niether heat nor cold), Good for eyes, *Avidahi*(Does not cause burning sensation), *Agnidipana*(Stimulates appetite).

Sauvarchala Lavana^[33]- Pharmacological Actions-It is Laghu(Light), Katu(Pungent), Katu Vipaka(Pungent at post digestive effect), Hridya(Good for heart), Sugandhayukta(Pleasant odour), *Udgarashodhaka*(Relieves belching), *Ruchikaraka*(Tasty), *Vibandhahara*(Relieves constipation), *Anahanashaka*(Relieves distention of abdomen).

Jyotishmati^[34]- **Botanical Name-** *Celastrus paniculatus* Willd, **Family-** Celastraceae.

Actions-The **Pharmacological** *Jyotishmati* is *Katu*(Pungent), *Tikta*(Bitter), Saraka(Laxative), Ushna Virya(Hot potency), Vamaka(Causes Vomiting), in *Teekshna*(Penetrating), Agnidipaka(Appetizer), Buddhivardhaka(Promotes intellect), Smritidayaka(Retains memory), subside Kapha and Vata Doshas.

Shunthi^{[35],[36]} Botanical Name- Zingiber officinale Rosc, Family- Zingiberaceae-Pharmacological Actions- Shunthi is Ruchya(Promotes taste), Amavatagna(Cure rheumatoid arthritis), Pachani(Digestive), Katuka(Pungent in taste), Laghu(Light), Snigdha(Presence of volatile oils), Ushna(Heat producing), Madhura Paka(Sweet after post digestive effect), alleviates Kapha-Vata, Vibandha(Constipation). It is Vrushya (Aphrodisiac), cures Swarya(Improves voice), Vami(Vomiting), Shwasa(Dyspnoea), Shoola(Colic), Kasa(Cough), Hridayamaya(Heart diseases), Shleepada(Filariasis), Shotha(Edema), Arsha(Haemorrhoids), Anaha(Distention of abdomen), Udara Maruta(Flatulence). It is Agni Guna dominant(Qualities of fire), Toyamsha Parishosha(Water absorbent), Sangrahi(Hardens the stool).

CONCLUSION

The Nose and the brain are separated by the cribriform plate and above the cribriform plate there is little extension from the brain that is known as olfactory bulb that sends its projections into the olfactory epithelium. The olfactory epithelium receives the impulse from the odour and send it to the olfactory nerves in the olfactory bulb which further send the signals to the mitral or tufted cells of brain. Hence the nose is directly connected to the brain. Taila is considered as best Nasya Dravya because taila doesn't disturb the pH of nasal mucosa, whereas Ghrita is alkaline and causes changes in the pH. By the above discussion most of the drugs are Katu Rasa(Pungent in taste), Ushna Virya(Hot in potency) and Katu Vipaka(Pungent in post digestive effect). These drugs act as stimulating effects on nervous system which supports the above concept. Further scope of study is to scientifically evaluation and cellular level absorption of these drugs in vitro and in vivo parametres.

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