



International Journal of Indian Medicine

www.ijim.co.in



IJIM

May 2020



International Journal of Indian Medicine

Access the article
online



Vasa Sneha- A rare but potent Ayurvedic remedy

Jadhav NM¹, Auti SS²

1. Research officer (Ayu.), CARICD, New Delhi, India
2. Associate Professor, Faculty of Indian medical system, SGT university, India

Abstract:

Abstract: Many traditional therapies are forgotten nowadays due to widespread popularity of allopathy and changes in dietary habits of humans. Cruelty to animals is also a major contributing factor toward loss of some specific and highly effective animal products which were used in Ayurveda for rare and incurable diseases. Vasa Sneha is one such animal product which is indicated in difficult to cure conditions like uterine prolapse, senile non healing fracture, impotency, blindness etc. With this background a review was done using ayurvedic literature, traditional knowledge available through various online and offline resources, research works etc. On reviewing its clear that Vasa Sneha has few specific indication and need more research to elaborate the wide range of spectrum of it.

Key Words: Standardization, Scoring, WHO, Statistical tests

Corresponding Author:

Jadhav Nandini M, Research officer (Ayu.), CARICD, New Delhi
email- nandini.punarvasu84@gmail.com



How to cite this article: Jadhav NM, Auti SS. Vasa Sneha- A rare but potent Ayurvedic remedy. Int. J Ind. Med. 2020;1(2):47-62.

Introduction:

Ayurveda is unique medical science that considers every molecule in the world is having medicinal properties if used in correct way. Similarly Samanya- Vishesh Siddhanta of Ayurveda advocates using any substance that have similar property as of any bodily substance. When there is depletion of *Sneha* in body, *Sneha* from plant or animal origin is used. *Vasa* is one such *Sneha* Ayurveda have indicated for specific reasons.

Vasa is the unctuous substance derived from the Shuddha Mamsa. It is an *UpaDhatu* of *MamsaDhatu*. According to Indu Mamsa is considered as *Vasasaya*. In Ayurvedic literature and in traditional practices in India various references of use of *Vasa* are found but still is used very rarely and for very least indications. In Ayurveda Varaha *Vasa* is considered as *Agrya* i.e. best to be used. *Vasa* obtained from Varaha Mamsa is called Varaha *Vasa*.

***Vasa* is actually Intramuscular or intermuscular**

Fat: Fat inside the skeletal muscle is known as intra muscular fat whereas intermuscular fat is fat between muscle groups and within a muscle found beneath the fascia of a muscle. Both are considered as *Vasa* as per Ayurveda. Intramuscular fat is mainly triglycerides stored in adipose cells embedded in the perimysial connective tissue wall of the muscle. As meat is cooked, triglycerides melt and bathe the muscle fibers and can be seen as droplets floating over water used for cooking.^[1] Intra muscular fat (IMF) content of an animal varies due to several factors. Among which the most important are species, muscles, sex, weight, age and nutritional level. The IMF content is conventionally determined chemically by extraction using different organic solvent. Various methods are used for IMF content determination and extraction.

IMF content determination:**a) Near infrared spectroscopy analysis**

Fresh meat samples about 100 gm were homogenised in a domestic blender for at least 30 s in order to obtain a homogenous mixture. Samples were then put in a rectangular quartz cup (47x57 mm²) about 3mm thick, covered by a paper disc placed directly in the NIR apparatus. The samples were scanned with an NIR system model 6500 spectrophotometer in a range from 400 to 2500 nm.

b) Reference method (Ether extraction)

The gold standard for crude fat extraction is ether extraction using Association of Official Analytical Chemists (AOAC) Method. Petroleum ether or diethyl ether can be used as the extraction solvent using this method. Petroleum ether is less volatile compared to diethyl ether. It has a low boiling point (35 to 37°C) and contains mostly hexanes and pentanes. Petroleum ether is a nonpolar, hydrophobic solvent. Solvent extraction works by breaking van der Waals interactions, electrostatic interactions and hydrogen bonds. Neutral lipids then hydrophobically bond to the nonpolar solvent and are extracted from the sample. The amount of lipid extraction depends on the solubility of the different types of lipids present within the sample. Nonpolar solvents are extracting nonpolar lipids and vice versa.

c) Folch method of Extraction: The Folch method of extraction was developed by Folch et al. (1957). Folch uses a mixture of extraction solvents chloroform and methanol as a 2:1 ratio. This mixture of extraction solvents works the same way as ether in that they break van der Waals interactions, electrostatic interactions and hydrogen bonds and soluble lipids are extracted by the solvents .2:1 chloroform and methanol is used in a two step extraction .The first step homogenizes the sample with the solvent mixture and then filtered, extracting about 95% of the total tissue lipids. The second step involves a water or salt solution wash. This wash separates the lipids in the

lower phase while some highly polar lipids are lost in the upper phase.

d) CEM method of Extraction: The CEM SMART Trac system uses nuclear magnetic resonance (NMR) to determine total lipid content based on low-resolution time-domain NMR. This system does not use any chemical solvents nor does it extract any components from the sample. Nuclear magnetic resonance uses magnetic field to detect radio frequencies admitted from hydrogen nuclei (H⁺ or protons) of different food components are distinguished by each components different rates of decay or nuclear relaxation. Liquid protons produce a slower signal which means they relax

slowly or disappear last compared to other components in meat. Of those liquid components, lipids relax the slowest, giving off the last signal which is detected by the machine. Total fat content is determined by the intensity of the signal. Signal intensity is directly proportional to the number of lipid protons.

e) Boiling method: Meat is boiled in appropriate quantity of water and allowed to cool. The superficial layer, which appears as white coloured globules, is taken as IMF. Minimum amount of IMF can be extracted by this method. However boiling method is easy to use and widely practiced by ayurvedic practitioners who use *Vasa* in treatment.

Table no. 1 Composition of Fatty acid in Pig Meat^[2]:

No	Name of fatty acid	Amount
1	Saturated (%)	35%
2	MUFA (%)	40%
3	PUFA (%)	20%
4	Cholesterol Mg/100gm	60
5	n-6/n-3	8
6	P/S	0.5

Table no. 2 Physicochemical standards of Varaha Vasa Sneha (pork meat fat)^[3]:

Parameter	Vasa
❖ Specific Gravity	0.918
❖ Acid value	0.057
❖ Refractive Index	1.473
❖ Iodine value	41.46
❖ Saponification Value	165.21

Ayurvedic perspective of Vasa Sneha: *VasaSneha* is described in general in context of *MahaSneha* where *Vasa* is termed as *Guru* as compared to *Taila-Ghrita* and *Laghu* as compared to *Majja*. There lies a great difference in properties of *Vasa* and *Meda* though both are basically animal fats.

Difference between Meda and Vasa: *Meda* according to Ayurveda is a *Dhatu* formed after *Mamsa* in sequence as per *Kshira-Dadhi Nyaya*. And it seen that the later formed *Dhatu* is *Guru* than the previous one. *Vasa* is not a *Dhatu* but is considered

as *UpaDhatu of Mamsa* i.e. it is formed after *Mamsa* but before *Meda*. Hence it is *Laghu* as compared to *Meda*. Subcutaneous fat can be compared with *Meda Dhatu* specifically whereas intramuscular and intermuscular fat can be taken under heading of *Vasa*. Thus there lies a significant difference in properties of both these fat depots as per Ayurveda. Modern literature also reconfirms these facts. There is significant evidence that the lipids of muscle have a lower content of saturated fatty acids (SFA), monounsaturated fatty acids (MUFA),

and conjugated linoleic acid (CLA) and a higher content of polyunsaturated fatty acids (PUFA) compared to subcutaneous fat. Intramuscular fat also have the highest PUFA/SFA and fatty acids ratios and total omega -3 and omega-6 PUFAs compared to subcutaneous tissue depots.^[4] Many studies have reported that replacing saturated fat and transfatty acids with unsaturated fat, especially n-3 fatty acids, is more effective in

lowering the risk of coronary heart disease than simply reducing total fat consumption.^[5] These scientific evidences proves the claim of Ayurvedic literature that *Vasa* is Laghu than *Meda* and thus in *MahaSneha* also Ayurveda have included *Vasa* instead of direct use of *Meda Dhatu* though subcutaneous fat is easy to collect by boiling method.

Table no. 3 Sources of *VasaSneha* and their properties according to Ayurveda are as follows,^[6]

Type of organism according to Ayurveda	Properties	Doshaghnata
<i>Gramya-Anupa-Audaka</i>	<i>Guru, Ushna, Madhura Rasa</i>	<i>Vataghna</i>
<i>Jangala-Ekashaka- Kravyad</i>	<i>Sheeta, Laghu, Kashaya Rasa</i>	<i>Rakta-Pittaghna</i>
<i>Pratuda-Vishkira</i>		<i>Kaphaghna</i>

Indications of *Vasa Sneha* are as follows.^[7]

1. Wounds
2. Fractures
3. Trauma
4. Prolapse of uterus
5. Earache
6. Headache
7. To increase virility
8. For those who are exposed to severe wind, sun and having dryness in body
9. For those who are emaciated by carrying heavy weight.
10. For those in whom Retas, Rakta and Kapha are decreased
11. For those having severe pain in bones, joint, vessels, muscles, vital parts and alimentary tract.
12. In whom the highly provoked Vata, becomes Avrita in Srotasa
13. For those having good Agnibala.
14. For those having *Vasa-satmya*.

Use of *Vasa* according to Ayurveda can be done in the form of Shamana or Brimhana *Sneha* as seen from the indications. However external application is also effective and used traditionally locally in cases of senile non healing fractures,

compression fractures etc. *Vasanjana* is also an unique formulation of *VasaSneha* indicated in *Shushkakshipaka* and seems to have promising result as seen by previous researches.^[8] Acharya Vagbhata have advocated using *Vasa* derived from Tiger, Pork, Snake, vulture and Chicken for Anjana Purpose.^[9] For Tarpana purpose he advocates peacock, chicken, Tittira, Godha, Vichhalyak *Vasa*.^[10] Vagbhata is so confident about the potency of Snake *Vasa* that he describes as if Snake *Vasa* is used as Anjana then even a blind person also can get vision.^[11]

The properties of Varaha *Vasa* is similar to that of Varaha mamsa^[12] as below,

Ayurvedic Properties:

Rasa: *Madhura*

Guna: *Snigdha, guru*

Virya: *Sheeta*

Vipaka: *Madhura*

Doshaghnata *Vata Shamana*

Karma: *Bhrimhana, Vrishya, Balavardhaka, Rochana, Swedana, Snehana, Tarpana, Sramahara* etc

Discussion:**Traditional practices using Vasa Sneha-**

1. Vasa of *Saara hardwickii*, commonly known as the Indian spiny-tailed lizard (traditionally called Sanda) is used as an embrocation and also as a cure for impotence.^[13]
2. livers of *Gadus morhua* and other species of cod i.e. Cod liver oil is used to relieve complaints such as rheumatism, aching joints, and stiff muscles. cod liver oil contains large amounts of vitamins A, D, and omega-3 fatty acids.^[14] Pharmaceutical preparations of this oil are used to treat acne vulgaris and keratosis pilaris and to treat acute promyelocytic leukemia.^[15] beside liver oil is also extracted from whole fish which is known as fish oil. Fish oils include the omega-3 fatty acids (O3FA), eicosapentaenoic acid, and docosahexaenoic acid (EPA and DHA).^[16]
3. Emu bird (*Dromaius novaehollandiae*) Oil is used traditionally for treatment of Wrinkles and fine lines, Stretch marks, Arthritis, Eczema, Acne, Hair loss, Headaches, Bruises, Burns etc. And also have shown anti-inflammatory properties in experimental animal models.^[17]
4. animal fat of spotted deer is used by tribes in India to apply on burns and rub on piles. Pig fat is applied in paralysis, joints pain, burns and fracture. Fox & panther fat is massaged in the treatment of rheumatism and skin diseases.^[18]

Conclusions:

Considering all the researches and references of use of *Vasa Sneha* it points towards importance of research in the field of *Vasa Sneha* and need of reconfirmation of its wide range of medicinal properties. Though its use in medicine is surely a cruelty to certain extent to the animals but still the potency of *Vasa Sneha* can not be overlooked and at least *Vasa* of those animals which are part of food habits of Indian population can be considered surely for medicinal use.

References:

1. <https://www.sciencedirect.com/topics/agricultural-and-biological-sciences/intramuscular-fat> cited on April 16, 2020
2. Choi YS, Lee JK, Jung JT, et al. Comparison of Meat Quality and Fatty Acid Composition of Longissimus Muscles from Purebred Pigs and Three-way Crossbred LYD Pigs. Korean J Food Sci Anim Resour. 2016;36(5):689–696
3. Jadhav NM, Dhiman KS, Shukla VJ, Naria Mukesh, “A Clinical Study on Ayurvedic Treatment Protocol of Shushkakshipaka (Dry Eye Syndrome) with Drakshadi Ghratapana, Vasanjana and Anutaila Nasya.” Ph.D. thesis, IPGT & RA, GAU jamnagar, 2014
4. K. Nuernberg, D. Dannenberger, G. Nuernberg et al., “Effect of a grass-based and a concentrate feeding system on meat quality characteristics and fatty acid composition of longissimus muscle in different cattle breeds,” Livestock Production Science, vol. 94, no. 1-2, pp. 137–147, 2005.
5. T. A. B. Sanders, “High-versus low-fat diets in human diseases,” Current Opinion in Clinical Nutrition and Metabolic Care, vol. 6, no. 2, pp. 151–155, 2003.
6. Sushruta. Sushruta Samhita Dalhana Comm. - Nibandhasangraha, Chowkhamba Orientalia Varanasi, 2002, Su. Su. 45/131, pg. 207
7. Agnivesha. Charaka Samhita, Comm. Chakrapanidatta Ed. R.K. Sharma, Bhagawandash, Chowkhamba Sanskrita Series, Varanasi, 1984, Ch. Su. 13/47-49, pg. 84
8. Jadhav Nandini M, Dhiman KS, Nariya Mukesh, Auti Swapnil, Pharmacological study to evaluate acute eye irritation/corrosion activity of Vasanjana - an Ayurvedic formulation, International Journal of Pharma Research and Health Sciences, Volume 2 (2), 2014, Page-121-124

9. Vagbhata. Ashtanga Hridaya - Sarvanga Sundari Comm. Arunadatta, Choukshambha Krishna Das Academy, Varanasi, 2000, A.H.U 13/55-56, pg. 822
10. Vagbhata. Ashtanga Hridaya - Sarvanga Sundari Comm. Arunadatta, Choukshambha Krishna Das Academy, Varanasi, 2000, A.H.U 13/60-61, pg. 822-23
11. Vagbhata. Ashtanga Hridaya - Sarvanga Sundari Comm. Arunadatta, Choukshambha Krishna Das Academy, Varanasi, 2000, A.H.U 13/41, pg. 821
12. Sushruta. Sushruta Samhita Dalhana Comm. - Nibandhasangraha, Chowkhambha Orientalia Varanasi, 2002, Su. Su. 46/ 102, pg. 223
13. https://en.wikipedia.org/wiki/Saara_hardwick_ii#cite_note-13 cited on 15-04-2020
14. Ross CM. Fish oil versus cod liver oil: is vitamin D a reason to go back to the future Journal of American Board of Family Practice. 2005;18:445-446.
15. Knight JA, Lesosky M, Barnett H, Raboud JM, Vieth R. Vitamin D and reduced risk of breast cancer: a population-based case-control study. Cancer Epidemiology Biomarkers Prev. 2007;16:422-429.
16. Yokoyama M, Origasa H, Matsuzaki M, et al. Japan EPA Lipid Intervention Study (JELIS) Investigators Effects of eicosapentaenoic acid on major coronary events in hypercholesterolaemic patients (JELIS): a randomised open-label, blinded endpoint analysis. Lancet. 2007;369:1090-1098.
17. <https://www.the-dermatologist.com/content/what-emu-oil-and-why-are-patients-rubbing-it-their-skin> cited on 15-04-2020
18. P Padmanabhan & KA Sujana, Animal products in traditional medicine from Attappady hills of Western Ghats, Indian Journal of Traditional Knowledge Vol. 7(2), April 2008, pp. 326-329

Financial support and sponsorship

Nil.

Conflicts of interest

Nil.