



Exploring the Shaka varga in Bhavaprakasha Nighantu for Aphrodisiac vegetables

Lakshmi S P

Department of Dravyaguna

Sri Sri College of Ayurvedic Science and Research Hospital, Sri Sri University, Cuttack, Odisha, India.

Abstract

Ayurveda, an ancient system of healthcare, underscores the pivotal role of diet (Ahara), sleep (Nidra), and sense control (Bramhacharya) in maintaining optimal health. In the contemporary context, widespread adoption of unhealthy dietary patterns, characterized by high intake of saturated fats, sugars, and low antioxidant consumption, coupled with sedentary lifestyles, contributes significantly to the global burden of obesity and chronic diseases. Within Ayurveda, Vajikarana, a specialized branch focused on enhancing reproductive health, offers insights into aphrodisiac therapies and lifestyle practices. Notably, Ayurvedic texts classify certain vegetables (Shaka varga) as possessing Vrishya properties, emphasizing their role in promoting virility and reproductive vigor. This article delves into the Shaka varga from Bhavaprakasha Nighantu, focusing on the 16 Vrishya dravyas listed in it. It highlights the significance of vegetables in our everyday meals, underscoring their nutritive value and crucial role in preventing and managing infertility.

Keywords: Ayurveda, Vrishya, Shaka varga, Bhavaprakasha nighantu

Introduction

Ayurveda, an ancient healthcare system, aims to preserve the well-being of healthy individuals and alleviate illnesses in those who are unwell [1]. Within Ayurveda, Ahara (diet), Nidra (sleep), and Bramhacharya (control over senses) are regarded as crucial for maintaining a healthy life. Among these, Ahara is prioritized as the foremost remedy, highlighting its significance in promoting well-being [2]. (ref-screen shot kushavaha)

In recent years, there has been a widespread adoption of unhealthy eating habits marked by increased intake of saturated fats, trans fatty acids, simple sugars, and high sodium content, coupled with reduced consumption of antioxidant-rich foods like fruits and vegetables (3). These dietary choices, combined with a sedentary lifestyle, contribute significantly to the rising prevalence of overweight and obesity. These conditions are known risk factors for various chronic diseases such as cancer, diabetes, cardiovascular disease, and male infertility (4).

Ayurveda extensively covers infertility, including its causes, underlying mechanisms, and treatment methods under the specialized category known as Vajikarana. Vajikarana, also referred to as Vrishya chikitsa, is among the eight principal specialties of Ayurveda. This discipline specifically focuses on enhancing virility, aphrodisiac treatments, and methods to improve reproductive health and vigor [5]. According to Cakrapani, Vrishya is defined as a substance that either facilitates the ejaculation of semen outside the body or enhances the production of Sukra, which is seminal fluid [6].

Shaka varga, or vegetables, are primary sources of vitamins and minerals essential for disease prevention and maintaining health. According to Bhavaprakash Nighantu, there are a total of 65 vegetables categorized into five types based on the parts used: Pushpa (flowers used as vegetables), Patra (green leafy vegetables), Phala (fruits used as vegetables), Nala (stalk vegetables), and Kanda (tuberous vegetables). These drugs are noted for their diverse pharmacological effects and therapeutic benefits. Among these classifications, 16 vegetables are specifically recognized for their Vrishya or aphrodisiac properties under the names – Shukrala, Shukrada, Shukrakara, Vrishya which indicates their potential to enhance virility and reproductive health as per Ayurvedic principles [7].

Materials and Methods- Detail review of Bhavaprakash Nighantu was done for Rasa, Guna, Veerya, Vipaka, Karma and other properties of Vrishya dravyas mentioned in Shaka varga. Literature review was done for related articles in Pubmed, Scopus, Google scholar and other peer review journals.

Table 1 – List of Vrishya dravyas mentioned in Shaka varga of Bhavaprakasha Nighantu.

SL no	Dravya	Botanical name	Rasapanchaka (Properties)	Karma (action on Shukra dhatu)
1.	Vastuka	<i>Chenopodium album</i> Hook. f.	Madhura, lavana rasa Laghu guna Katu vipaka	Shukrada
2.	Potaki	<i>Basella alba</i> Linn.	Snigdha, Picchila guna Sheeta veerya	Shukrada
3.	Kalambi	<i>Ipomoea aquatica</i> Forsk.	Madhura rasa	Shukrakari
4.	Shitivara	<i>Celosia argentea</i> Linn.	Madhura rasa Laghu guna Sheeta veerya	Vrishya
5.	Patolapatra	<i>Trichosanthes dioica</i> Roxb.	Laghu, Snigdha guna Ushna veerya	Vrishya
6.	Kasamarda Patra	<i>Cassia occidentalis</i> Linn.	Madhura rasa Laghu guna Ushna veerya	Shukrala
7.	Karkaru	<i>Cucurbita Pepo</i> Linn.	Guru guna Sheeta veerya	Vrishya
8.	Alabu	<i>Lagenaria siceraria</i> (Mol.)	Madhura rasa Guru guna	Vrishya
9.	Patola	<i>Trichosanthes dioica</i> Roxb.	Tikta rasa Laghu guna Ushna veerya	Vrishya
10.	Kolashimbi	<i>Canavalia virosa</i> Roxb.	Guru guna Ushna veerya	Vrishya
11.	Vruntaka	<i>Solanum melongena</i> Linn.	Madhura rasa Tikshna, Laghu guna Ushna veerya Katu vipaka	Shukrala
12.	Dodika	<i>Wattakaka volubilis</i> Linn. f.	Madhura rasa Laghu guna	Vrushya
13.	Aluka	Controversial	Madhura rasa Guru guna Sheeta veerya	Vrushya
14.	Varahikanda	<i>Dioscorea bulbifera</i>	Tikta rasa	Shukrala
15.	Kaseru	<i>Scirpus grossus</i> Linn. f.	Madhura, Kashaya rasa Guru guna Sheeta veerya	Shukrakara
16.	Shaluka	Controversial	Madhura rasa Guru guna Madhura vipaka	Vrushya

Discussion

Majority of drugs in the table (Table 1) possess Madhura rasa, guru guna, sheeta veerya, madhura vipaka and as per ayurveda qualities of Vrishya dravyas are Madhura, Snigdha, Jeevana, Brimhana and Guru. A study explored the effects of an ethanolic extract from *Chenopodium album* Linn. on male albino mice, traditionally used in Ayurvedic medicine for male sexual disorders. Administered orally over seven days at doses of 100, 250, and 500 mg/kg, the extract significantly increased sexual behavior parameters such as Mounting Frequency, Intromission Frequency, Erections, and penile reflexes. It also reduced Mounting Latency and Post Ejaculatory Interval, with the most pronounced effects observed at the highest dose of 500 mg/kg. Importantly, the extract did not induce gastric ulceration or adverse effects. These findings suggest that *Chenopodium album* extract may enhance sexual activity in male mice, validating its traditional use as an aphrodisiac in Ayurvedic medicine [8].

The study investigated the effects of *Basella alba* methanol extract (MEBa) on testosterone levels and fertility in male rats exposed to flutamide before birth. MEBa increased testosterone levels and improved fertility in normal rats. In rats exposed to flutamide, MEBa increased testosterone in younger rats and improved fertility in older rats without affecting testosterone levels. These findings suggest MEBa may enhance fertility in rats exposed to antiandrogens during fetal development [9].

Varahikanda whole plant is considered as one of the potential aphrodisiac herbs according to a review done by S Baljinder et al which can help researchers to develop new aphrodisiac formulations [10].

In a clinical study, the Ayurvedic formulation 'Gudakushmand' was administered orally at a dosage of 10 grams twice daily, combined with sugar and cow's milk as anupana, to treat Shukradhatukshaya (Oligospermia). The study concluded that this formulation can

be recommended as a safe therapeutic option for managing Oligospermia. Notably, Kaseruka, an ingredient in Gudakushmanda, contributes to its effectiveness in this regard [11].

In a recent study, researchers examined the effects of adding vitamin E (100 mg) and omega-3 fatty acids (300 mg/day) on reproductive parameters in employees of an automobile parts manufacturing plant. Previous studies have suggested that omega-3 fatty acids can enhance antioxidative defenses, promote beta-oxidation in sperm mitochondria, reduce oxidative stress, maintain sperm membrane integrity, and improve sperm health and function. These effects potentially alleviate male infertility [12, 13-15]. Improved fertility outcomes are observed in individuals who follow healthy diets rich in supplements containing high levels of phytochemicals, fatty acids, antioxidants, and micronutrients [16]. Many of the vegetables mentioned in this article are known for their potent micronutrient and antioxidant content [17-20].

Conclusion

Ayurveda stands as a profound system of healthcare that underscores the essential pillars of diet, sleep, and sense control for maintaining optimal health. In contrast, contemporary dietary trends marked by high saturated fats, sugars, and low antioxidants, coupled with sedentary lifestyles, contribute significantly to global health challenges like obesity and chronic diseases. Ayurveda's specialized branch, Vajikarana, offers valuable insights into enhancing reproductive health through aphrodisiac therapies and lifestyle practices. The classification of certain vegetables (Shaka varga) with Vrishya properties further emphasizes their role in promoting virility and reproductive vigor, as detailed in ancient texts like Bhavaprakasha Nighantu. This discussion underscores the nutritive significance of vegetables in everyday diets, advocating their pivotal role in both preventing and managing infertility.

References

1. Kushwaha Vd. Harish Chandra Singh, Editor-Translator. Charak Samhita Ayurveda Dipika Ayushi Hindi Commentary; Sutrasthan, Reprint Ed1; Ch.30, Verse 26. Vol.1. Varanasi; Chaukhamba Orientalia Publication; 2016:P.495.
2. Kushwaha Vd. Harish Chandra Singh, Editor-Translator. Charak Samhita Ayurveda Dipika Ayushi Hindi Commentary; Sutrasthan, Reprint Ed1; Ch.30, Verse 26. Vol.1. Varanasi; Chaukhamba Orientalia Publication; 2016:P.171.
3. Kamangar F, Karimi P. The state of nutritional epidemiology: why we are still unsure of what we should eat? Arch Iran Med. 2013;16(8):483-6.
4. Aggerholm AS, et al. Is overweight a risk factor for reduced semen quality and altered serum sex hormone profile? Fertil Steril. 2008;90(3):619-26.
5. Dr. Narendra Nandkishor Borate, study on effectiveness of ayurvedic treatment in idiopathic azoospermia, oligospermia and asthenospermia, ggra, June, 2019; viii: 6. ISSN NO.22778160, 189.
6. Charaka Samhita, with Ayurveda Dipika commentary of Chakrapanidatta, edited by Yadavji Trikamaji Acharya, Chikitsa Sthana 2/4/51, Chaukhamba Sanskrit Samsthan: Varanasi; reprint edition 2008, p.397.
7. Krishnachandra chunekar, gangasahay pandey, bhavaprakasha nigantu (Indian material medica), Varnanasi: Chauhamba bharti academy Rp. shakhavarga, Yadavaji Trikamaji Acharya, Charaka Samhita of Agnivesha revised by Charaka and completed by Dridhabala, Chikitsasthana Chapter 2, pada 4verse 36. Reprint edition, Varanasi, Chaukhamba Orientalia, 2014. p.397.
8. Pande M, Pathak A. Sexual Function Improving Effect of Chenopodium Album (Bathua sag) in Normal Male Mice. Biomed. Pharmacol. J.2008;1(2)
9. Nantia EA, Manfo PF, Beboy NE, Travert C, Carreau S, Monsees TK, Moundipa PF. Effect of methanol extract of Basella alba L. (Basellaceae) on the fecundity and testosterone level in male rats exposed to flutamide in utero. Andrologia. 2012 Feb;44(1):38-45. doi: 10.1111/j.1439-0272.2010.01104.x. Epub 2011 May 19. PMID: 21592171.
10. Baljinder singh, Vikas gupta, Praveen bansal, Ranjeet singh, Dharmendra kumar, pharmacological potential of plant used as aphrodisiac, Dec-2005; 5(1): 1-016
11. Kumar Arvind, Prasad Mahendra, Meena Mahendra, Clinical Evaluation of Gudakushmand in Shukradhatukshaya W.S.R. to Oligospermia. WJPR. Nov 2015; 4(10):1294-1303.
12. Collodel, G.; Castellini, C.; Lee, J.C.-Y.; Signorini, C. Relevance of fatty acids to sperm maturation and quality. *Oxidative Med. Cell. Longev.* 2020.
13. Kurutas, E.B. The importance of antioxidants which play the role in cellular response against oxidative/nitrosative stress: Current state. *Nutr. J.* 2016, 15, 71.
14. Signorini, C.; Moretti, E.; Noto, D.; Micheli, L.; Ponchia, R.; Collodel, G. Fatty acid oxidation and pro-resolving lipid mediators are related to male infertility. *Antioxidants* 2022, 11, 107.
15. Mohammadi, H.; Golbabaie, F.; Dehghan, S.F.; Imani, H.; Ramezani Tehrani, F.; Khodakarim Ardakani, S. The Influence of Vitamin E and Omega-3 Fatty Acids on Reproductive Health Indices Among Male Workers Exposed to Electromagnetic Fields. *Am. J. Men's Health* 2022, 16, 15579883221074821.
16. Ferramosca, A.; Lorenzetti, S.; Di Giacomo, M.; Lunetti, P.; Murreri, F.; Capobianco, L.; Dolce, V.; Coppola, L.; Zara, V. Modulation of human sperm mitochondrial respiration efficiency by plant polyphenols. *Antioxidants* 2021, 10, 217.
17. Syed Sulthan Ahamed S N, Shekshavali. T, Syed Shafeeq. R. Celosia argentea: A Review . Res. J. Pharmacology and Pharmacodynamics.2018; 10(2): 83-86. doi: 10.5958/2321-5836.2018.00015.0
18. M. Maya, K. Rameshkumar, V. Veeramanikandan, T. Boobalan, M. Kumar, M. Eyini, A. Arun, A. Pugazhendhi, P. Balaji .Evaluation of antioxidant, anti-inflammatory, and anti-hyperglycemic effects of Wattakaka volubilis Linn. f. Process Biochem, 112 (2022), pp. 183-191
19. Shivhare Y, Singh P, Rajak H, Patil UK, Pawar RS, Antioxidant Potential of Trichosanthes dioica Roxb (fruits). Pharmacognosy Journal 2010; 2 (6): 107-111.

20. Aswathi V, Abdussalam A. K. Determination of energy content, phytochemical constituents and antioxidant activity of potential wild edible legume; canavalia rosea (sw.) Dc. From northern kerala. Int J Curr Pharm Res Aug 2020; 12 (5): 86-89.

