



SCIENTIFIC REVIEW OF SWARNA PRASHAN AS A BOON FOR CHILDREN

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ABSTRACT

Swarnaprashan, under the procedure of lehana has been described in ancient Ayurvedic text Kashyap Samhita in which processed gold is given to children. Describing the benefits of swarnaprashan Acharya kashyapa says that in children it helps in improving intellect, physical strength, digestion and metabolism, immunity, fertility, complexion and also improves the life span. Acharya kashyap has mentioned that by feeding the gold for one month, the child becomes extremely intelligent and is not attacked by any diseases and by using it for six months, the child is able to retain what-so-ever he/she hears. This easy way of administration of pure gold to the child results in development of non specific immunity which can act as an adjuvant to the prevailing immunization schedule and help child to fight against many common disorders. Hence swarnaprashan has an advantage of being palatable, beneficial and health promoting to the modern day children.

KEYWORDS : Swarnaprashan, Pure gold, Immunity, Ayurveda.

INTRODUCTION

In this competitive era every parent is concerned about the immunity, growth and development of their wards. They are in constant search of any medicine/supplement/ remedy which is easily available palatable and free of adverse effects which help in overall development of their children. Ayurveda offers a safe, palatable and effective solution to the above needs in the form of Swarnaprashan.

Swarnaprashan has been described in ancient Ayurvedic text Kashyap Samhita in which processed gold is given to children under the procedure of lehana. Enumerating the benefits of swarnaprashan Acharya kashyapa says that in children it helps in improving intellect, physical strength, digestion and metabolism, immunity, fertility, complexion and also improves the life span. Expanding the benefits of swarnaprashan Acharya kashyap has mentioned that by feeding the gold for one month, the child becomes extremely intelligent and is not attacked by any diseases and by using it for six months, the child is able to retain what-so-ever he/she hears.^[1]

Various experimental studies show that Swarna Bhasma possesses free radical scavenging activity,^[2]

immunomodulatory,^[3] antistress activity^[4] and analgesic activity.^[5]

Viewing the enormous benefits of swarna prashan for children and aroused curiosity about swarnaprashan in the scientific community, the present scientific paper details the ancient review, practical procedure of usage and possible benefits of swarna prashan.

MATERIAL AND METHODS

The various references of swarnaprashan from Brihatryai granthas comprising of Charaka samhita, Sushruta samhita, Ashtanga samgrah and Ashtanga hridaya and other authentic Ayurvedic textbooks as Kashyapa samhita, Bhavaprakasha nighantu, Bhaisajya Ratnavali, Yognatnakara etc. were consulted and all the references pertaining to the subject were collected and arranged according to the relevancy.

The modern concepts pertaining to swarnaprashan are arranged from the standard pediatric textbooks, through researches, journals and other up-to-date authentic literature available on internet.

Historical review

Lehana has been described for administration of various herbal drugs and their combinations, ghee preparations or gold alone as an adjuvant for immunity building / supplementary feeds and for various other benefits for children. Acharya kashyapa has described the process of swarnaprashan in the context of lehan in lehadhyay of Kashyap samhita, which happens to be the first chapter of presently available Kashyap samhita.

Swarnaprashan as described In Lehaadhyay of Kashyap samhita^[1]

Acharya Kashyapa in his text Kashyap samhita has described Swarnaprashana for administration of gold in children for various benefits.

Procedure of Swarnaprashan

- Preparation:** Pure Gold should be triturated along with some water, madhu (honey) and ghee (clarified butter) on a clean stone which faces east direction.
- Method of administration:** The Shishu (infant) is made to lick the above lehana compound.
- Benefits:** The benefits enumerated by Kashyap are described below :

Benefits	Probable interpretation
Medha Vardhanam	Improvement of intellect
Agni Vardhanam	digestion, metabolism,
Bala Vardhanam	Immunity and physical strength
Ayushyam	promoting lifespan
Mangalam	Auspicious
Punyam	Righteous
Vrushyam	aphrodisiac
Varnyam	enhancement of color and complexion
Grahapaham	protection from evil spirits and

Pharmacological actions of contents of swarnaprashan Swarna (Gold)

Swarna has been classically used in ancient times in the form of swarna bhasma (calcinized gold), Swarna patra or in the form of Swarna parpati.

Bhasma is the most convenient and popular form of use of swarna preparation. The classical ayurvedic bhasma is prepared by complex treatment of fine metallic powder with herbal extracts and even with other metals.^[6]

Therapeutic properties^[7]

It increases strength, metabolic and digestive power, improves intellect, it is aayusha (Provide longevity) and varnaya (increase complexion).

The effect of Gold ash on dosha is said to be vatashamaka.

It has Rasayana, dipan, netrya, medhya properties.

Evidence based properties of gold ash

- Anti anxiety, anti depressant and anti cataleptic properties.^[4]
- Gold has Free radical scavenging activity.^[2]
- Increase of non specific immunity: It helps in increasing count of peritoneal macrophages and stimulated phagocytic index of macrophages.^[8]
- It has good analgesic activity.^[5]
- Antioxidant properties.^[9]

Madhu (Honey)^[10]

Madhu is a naturally occurring sweet fluid produced by the honeybees by enzymatic transformation of floral nectar ingested by them and deposited in the cells of hives or combs. The Indian species of honeybees belong to the genus Apis of which the common ones are A. indica, A. dorsata and A. florea (Fam. Apidae). In commerce, Madhu may be collected from naturally occurring hives in groves and forests, by pressing and squeezing in the traditional method or may be extracted by centrifugation of the combs containing honey in artificially maintained apiaries. Both have to be filtered before storage or use.

Description- A thick, syrupy, translucent yellow to yellowish brown fluid; taste sweet with a pleasant odour and flavour. When poured on to a tray as a thin layer, no impurities like mould, dirt, beeswax, insect fragments, plant debris or any other objectionable foreign matter should be visible to the naked eye in daylight.

Honey is one of the most appreciated and valued natural products introduced to humankind since ancient times. Honey is not only used as a nutritional product but also in health described in traditional medicine and as an alternative treatment for clinical conditions ranging from wound healing to cancer treatment.

Today, approximately 300 types of honey have been recognized.^[11]

Properties and action

Rasa : Madhura, Kasaya

Guna : Laghu (Susruta), Guru (Carak), Ruksha, Picchila, Yogavahi

Virya : Sheeta

Vipaka: Katu

Karma: Agnidipana, Caksusya, Pittaprasamana, Prasadana, Ropana, Sandhana, Slesmaprasamana, Sodhana, Tridosaprasamana, Vatapittaghna, Visaghna.

Therapeutic Uses-Arsa (Piles), Atisara (Diarrhoea), Chardi (Emesis), Daha (Burning sensation), Hikka (Hiccup), Kasa (Cough), Krimi (Helminthiasis / Worm infestation), Kshata (Wound), Kshaya (Pthisis), Kustha (Diseases of skin), Medoroga (Obesity), Prameha (Increased frequency and turbidity of urine), Raktapitta (Bleeding disorder), Raktavikara (Disorders of blood),

Svasa (Asthma), Trishna (Thirst), Visavikara (Disorders due to poison).

Evidence based properties of madhu

Antioxidant activity: Oxidants agents such as oxygen involve in preventing damage play as an antioxidant which is detected in foods and human body.^[12]

Antimicrobial activity: The main factors for antimicrobial activity of honey are the enzymatic glucose oxidation reaction and some of its physical aspects.^[13,14]

Apoptotic activity: Cancer cells are characterized by inadequate apoptotic turnover and uncontrolled cellular proliferation.^[15] Honey makes apoptosis in many types of cancer cells through depolarization of mitochondrial membrane.^[16,17]

Anti-inflammatory and immunomodulatory activities: Honey reduces inflammatory response in animal models, cell cultures^[18,19,20] and clinical trials.^[21]

Experimental research illustrated more documents supporting its usage in wound healing because of its bioactivities including antibacterial, antiviral, anti-inflammatory, and antioxidant activities.^[22]

There are strong evidences which indicate the beneficial effects of honey in the treatment of diabetes mellitus.^[23] Current studies show that honey may exert anticancer effects through several mechanisms.^[24]

Ghrita (Clarified cow's butter)^[25]

Synonyms- Ajya, Havisya, Sarpih, Ghrta

The Goghrita or cow's ghrita is considered to be the best ghrita in Ayurveda, hence for swarnaprashan karma Goghrita is generally used.

Properties of goghrita (Clarified cow's butter): Goghrita consists of clarified butter derived from cow's milk to which no colouring matter or preservative is added and contains not less than 76.0 per cent of milk fat by weight. It is an oily liquid or a semi solid at room temperature, granular in texture, colour white to light yellow, odour rich, taste pleasant. It shall be free from animal fats, wax, mineral oil, vegetable oils and fats.

Properties & action

Rasa : Madhura

Guna : Guru, Snigdha, Mridu

Virya : Sita

Vipaka : Madhura

Karma : Agnidipana, Anabhishtyandi, Ayushya, Balya, Caksushya, Dipana, Hridya, Kantiprada, Medhya, Ojovardhaka, Rasayana, Rucya, Slesmavardhana, Snehana, Sukravardhaka, Tejabalakara, Tvacya, Vatapittaprasamana, Vayasthpana, Visahara, Vrishya.

Therapeutic uses- Agnidagdha (Accidental burns), Amlapitta (Hyperacidity), Apasmara (Epilepsy), Aruchi

(Tastelessness), Grahani (Malabsorption syndrome), Jirna jvara (Chronic fever), Karnasula (Otagia), Ksataksina (Debility due to chest injury), Mada (Intoxication), Murcha (Syncope), Sirahsula (Headache), Smrtinasa (Loss of memory), Sosa (Cachexia), Unmada (Mania/psychosis), Visamajvara (Intermittent fever), Visarpa (Erysepales), Visavikara (Disorders due to poison), Yonisula (Pain in female genital tract).

Ghee is heavily utilized in Ayurveda for numerous medical applications, including the treatment of allergy, skin, and respiratory diseases. Many Ayurvedic preparations are made by cooking herbs into ghee. Ghee carries the therapeutic properties of herbs to all the body's tissues. It is an excellent anupana (vehicle) for transporting herbs to the deeper tissue layers of the body.^[26]

Dose of swarnaprashan

Acharya kashyap does not specifically describe the dose of swarna with reference to swarna prashan, however he has described the dose of general medicine according to the age of child. Few other available references regarding per day dose of Swarna Bhasma from various texts are given below :

S.No.	Reference	Dose of swarna bhasma
1.	Ras tarangini ^[27]	15- 30 mg (1/4 to 1/8 ratti)
2.	Bhaisajya ratnavali ^[28]	4 mg (1/32 ratti)
3.	AFI ^[29]	15.5 – 62.5 mg
4.	Practical dose	2 mg/kg body weight

Duration

At least for 6 months for desired and maximum benefits and to avoid long term toxicity. It is better to start from birth before full development of brain of child.

- ✓ It can be administered in any age group if used for general tonic.
- ✓ For immuno-modulation, it should be administered in children in early ages.

DISCUSSION

Ayurveda is always praised as being the way of life and not mere a system of medicine to treat any particular group of diseases. Ayurveda always emphasises on the preventive aspect of all disorders. Swarnaprashan has also been described as one of the ways by which we can naturally develop the strength and immune power of the concerned child so that he is able to fight common infections and lead a healthy life.

The ingredients of swarnaprashan largely serve as a combination which helps in overall development of bala in child which ensures building of non specific immunity and ultimately prevents the child from large number of diseases.

- Pharmacological studies showed specific & nonspecific immune responses, which were modified in a positive manner in Swarna Bhasma-treated mice.⁸ It also had a stimulatory effect on peritoneal macrophages, which may be helpful to fight against infections. The gold ash has antioxidant and free radical scavenging activity which helps the child in improving immunity power. It has been proved from pilot studies that:^[30]
- Gold is absorbed in trace amount from single dose of Swarnabhasma.
- Gold was absorbed in maximum amount from sublingual administration of 30 mg Swarnabhasma
- 30 mg dose mixed with black pepper powder and ghee showed quickest absorbance.

Although Acharya kashyap has not described the exact dose duration and day for swarnaprashan, but the available references lead a way to establish that swarnaprashan can be administered in the form of Bhasma (Pure gold ash) in the dose of 2 mg/kg. body weight for a duration of at least 6 months for the desired actions.

In today's era physicians have started to administer to give swarnaprashan once a month on pushya nakshatra which can be explained as pushya nakshatra is considered as most auspicious among other stars, they call it "The Star of Nourishment" the word itself translates to "Nourisher" or "thrive", etc. In General it is the day best for following activities to take medicines, learn from guru (advice), to prepare herbs etc.^[31]

CONCLUSION

Kashyapa samhita has described the process of swarna prashana. In the process of Swarnaprashan pure swarna (in the classical text) and swarna bhasm (in today's era) is given to the child in the form of lehana (to lick) along with honey and Goghrita. This easy way of administration of pure gold to the child results in development of non specific immunity which can act as an adjuvant to the prevailing immunization schedule and help child to fight against many common disorders. Hence swarnaprashan has an advantage of being palatable, beneficial and health promoting to the modern day children.

REFERENCES

1. Pandit Hemraj Sharma, Shri satyapal, Kashyap samhita, kashi Sanskrit Granth mala, Varanasi, edition Third, 1998. (K.S.S.18/4-5).
2. Mitra A, Chakraborty S, Auddy B, Tripathi P, Sen S, Saha AV, Mukherjee B. Evaluation of chemical constituents and free-radical scavenging activity of Swarnabhasma (gold ash), an ayurvedic drug, 2002; 80(2-3):147-53.
3. Harth M. Gold and modulation of the immune response, 1979; 5: 7-11.
4. Sonia Bajaj, S.B Vohora. Anti-Cataleptic, Anti-Anxiety And Anti-Depressant Activity Of Gold Preparations Used In Indian Systems Of Medicine Indian Journal Of Pharmacology, 2000; 32: 339-346.
5. Bajaj S, Vohora SB. Analgesic activity of gold preparations used in Ayurveda & Unani-Tibb. Indian J Med Res, 1998; 108: 104-11.
6. S. Mahdihassan Cinnabar-gold as the Best Alchemical Drug of Longevity, Called Makaradhwaja in India The American Journal of Chinese Medicine, 1985; 1(4): 93-108.
7. Siddhinandan Mishra, Bhaisajyaratnavali, chaukhambha sura Bharti publication, (B.R. 2/99-100), page 26.
8. Bajaj S, Ahmad I, Raisuddin S, Vohora SB. Augmentation of non-specific immunity in mice by gold preparations used in traditional systems of medicine. Indian J Med Res, 2001; 113: 192-6.
9. Shah ZA, Vohora SB. Antioxidant/restorative effects of calcined gold preparations used in Indian systems of medicine against global and focal models of ischaemia, 2002; 90(5): 254-9.
10. The Ayurvedic Pharmacopoeia Of India Part –I Volume- Vi First Edition Government Of India Ministry Of Health & Family Welfare Department Of Ayush New Delhi, 2008; 214: 216.
11. Lay-flurrie K. Honey in wound care: Effects, clinical application and patient benefit. Br J Nurs, 2008; 17(30): 32-6.
12. Han DH, Denison MS, Tachibana H, Yamada K. Relationship between estrogen receptor-binding and estrogenic activities of environmental estrogens and suppression by flavonoids. Biosci Biotechnol Biochem, 2002; 66: 1479-87.
13. Beretta G, Orioli M, Facino RM. Antioxidant and radical scavenging activity of honey in endothelial cell cultures (EA. hy926) Planta Med, 2007; 73: 1182-9.
14. Cushnie TP, Lamb AJ. Antimicrobial activity of flavonoids. Int J Antimicrob Agents, 2005; 26: 343-56.
15. Boukraa L, Niar A. Sahara honey shows higher potency against *Pseudomonas aeruginosa* compared to North Algerian types of honey. J Med Food, 2007; 10: 712-4.
16. Nicholson DW. From bench to clinic with apoptosis-based therapeutic agents. Nature, 2000; 407: 810-6.
17. Earnshaw WC. Nuclear changes in apoptosis. Curr Opin Cell Biol, 1995; 7: 337-43.
18. Fernandez-Cabezudo MJ, El-Kharrag R, Torab F, Bashir G, George JA, El-Taji H, et al. Intravenous administration of manuka honey inhibits tumor growth and improves host survival when used in combination with chemotherapy in a melanoma mouse model. PLoS One, 2013; 8: 55993.
19. Candiracci M, Piatti E, Dominguez-Barragán M, García-Antrás D, Morgado B, Ruano D, et al. Anti-inflammatory activity of a honey flavonoid extract on lipopolysaccharide-activated N13 microglial cells. J Agric Food Chem, 2012; 60: 12304-11.
20. Bilsel Y, Bugra D, Yamaner S, Bulut T, Cevikbas U, Turkoglu U. Could honey have a place in colitis

- therapy? Effects of honey, prednisolone, and disulfiram on inflammation, nitric oxide, and free radical formation. *Dig Surg*, 2002; 19: 306–11.
21. Leong AG, Herst PM, Harper JL. Indigenous New Zealand honeys exhibit multiple anti-inflammatory activities. *Innate Immun*, 2012; 18: 459–66.
 22. Murosak S, Muroyama K, Yamamoto Y, Liu T, Yoshikai Y. Nigerooligosaccharides augments natural killer activity of hepatic mononuclear cells in mice. *Int Immunopharmacol*, 2002; 2: 151–9.
 23. Yapucu Günes U, Eser I. Effectiveness of a honey dressing for healing pressure ulcers. *J Wound Ostomy Continence Nurs*, 2007; 34: 184–90.
 24. Eddy JJ, Gideonsen MD, Mack GP. Practical considerations of using topical honey for neuropathic diabetic foot ulcers: A review. *WMJ*, 2008; 107: 187–90.
 25. The Ayurvedic Pharmacopoeia Of India Part –I Volume- Vi First Edition Government Of India Ministry Of Health & Family Welfare Department Of Ayush New Delhi, 2008; 238: 239.
 26. Lad V. New York: Harmony Books; 1998. The Complete Book of Ayurvedic Home Remedies.
 27. Sadananda Sharma, Rasataranagini, 15th Taranga, 2-3,14,27, edited by Kashinath Shastri, 11th ed. Motilal Banarasidas, New Delhi, 2009; 361–67.
 28. Govind Das, Bhaishajya Ratnavali, Balarogachikitsa, 71/5-6, edited by Brhmashankar Tripathi, 19th ed. Chaukhamba Prakashan, Varanasi, 2009; 1073.
 29. The Ayurvedic Formulary of India. 2nd ed., Part-I, Sect. 18:20.Delhi: The Controller of Publications, Govt. of India, 2003; 247.
 30. Trupti Patil-Bhole a, Sangram Patil b, Asmita A. Wele c Assessment of bioavailability of gold bhasma in human participants : A pilot study, *Journal of Ayurveda and Integrative Medicine* journal homepage: <http://elsevier.com/locate/jaim>.
 31. <http://swarnaprashana.org/why-swarna-prashana-on-a-pushya-nakshatra>.