

Review Article

Effect of Swarnaprashana in children - A Review

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ABSTRACT:

Swarnaprashana is a traditional method of administration of medicated or pure gold practised all across India to promote the health of children in early childhood period and in infancy particularly. Several studies has been conducted to ascertain its therapeutic values on children of various age group to get the evidence for its Balya and Medhya properties. Moreover the myths regarding its adverse effect has been there in the minds of clinicians and practitioners needs to be abolished by pharmaco-clinical study to use it in routine practice. In the present article review of the previous work has been elaborated with respect to its advantages and concepts generated and made open regarding its adverse action in children.

KEY WORDS: Swarnaprashana, Balya, Medhya, Pharmaco-clinical.

INTRODUCTION:

Kaumarabhritya or Ayurveda Pediatrics is one of the foremost branch of Ayurveda ultimate goal of which is to enable every child to Grow and Develop into a healthy happy and useful citizen. Growth and development is an essential features of a child starts from the conception till adolescence. Kaumaravastha spans upto sixteen years of initial life marked by physical and physiological changes in body and mind. It deals with the care of a child before conception, during pregnancy and after birth till maturity advocating appropriate regimen both diet and activity conducive for a healthy individual. *Swarnaprashana* is one among others mentioned by Acharyas intended for the betterment of a child in its early childhood period.

Acharya Kashyap has described a lot of electuaries for infants to grow adequately for their potential taken by licking or orally serves as nutrients as well as medicinal purpose. *Swarnaprashana* is mainly aimed at the promotion of intelligence life span and immunity or disease free state. If taken continuously for one month to six months.

Pharmacological actions of Swarna

It is madhur, kashaya, snigdha, sheeta madhura in respect to Rasa, Guna, virya, vipaka and alleviates Tridosha mainly pitta shamaka. For the above mentioned property it acts as Medhya, Buddhikara, smirtikara. Hence it improves the function of higher centre grasping power, intelligence, memory and it accelerates Growth and Development during pregnancy and after birth. Over all it is useful in all diseases especially physical and mental illness and general debility Atisara, Grahani, Pandu, Unmada, Apasmara, chittodvega, Bhrama and Glani etc. in therapeutic doses due to rasayana, balya and Brumhana property.

Pharmacological and therapeutic Action of Swarna bhasma in different system

System	Action
CNS	Param Medhya, Smirti, pada, Manasroghara
Sensory	Netrya, vakshuddhikar
GIT	Ruchyam, Deepaniya
Immune	Balya, Rasayana, ojovardhak
Skin Appendages	Kantikaram, VarnyaKeshya

Pharmacological Properties of *Ghrta***Parameter Property**

1. Rasa : Madhura
2. Guna : Saumya, Mridu, anabhisyandi, snigdha.
3. Virya : Shita.
4. Vipaka : Madhura
5. Dosaghnata : Vata-pitta prashamana, Kaphakarak
6. Karma : Dipana, chakshusyam, Vayasthapanam, Medha-smirti-Mati-kanti-swara-Oja-tejo-Balakaram.

Cow ghee is superior to other types due to its special properties and has been recommended by all the Acharyas for medicinal uses.

Honey

It is one of the essential constituents in suvarna prashana and used as a vehicle with ghee acts as a catalyst in the preparation and to make it palatable in children. It is naturally sweet substance produced by honey bees from nectar or blossoms or from the secretion of living plants or excretions of plants. It is madhura kashaya Ruksha, Shita, Guru, yogavahi, sheeta, Madhura with respect to Rasa-guna-virya and Vipaka and alleviates pitta rakta and kapha dosa. It is useful for eyesight promotes voice colour and augments fire.

Method of Preparation of the *Swarnaprashana*

As per textual reference pure swarna should be rubbed with Ghee and honey on a stone or similar Yantra given to the child for lehana. With more demand and to practice in large scale the traditional process has been modified and practiced ensuring hygienic aspects in the institutions all over India. In order to prevent contamination vessels or Khalva bottles for packing should be sterile and should be prepared in Gloved hands wearing cap and mask. Although different methods of preparation are employed in different places two preparation methods are widely used among institutions and practitioners to get the full benefit for intellectual and immunogenic properties. Main ingredients in *Swarnaprashana* are Ghee, Madhu, swarna bhasma. While preparing Ghee and Honey should be taken in unequal quantity in order to prevent from any complications. Some methods of preparation are highlighted from previous study as under.

Ghee and honey were taken in 1:5 ratio and quantity of swarna bhasma was 1500 mg per 1 kg preparation

in our institution for school children. In one study of Jamnagar 11 gm of Ghee with 127g honey and 327mg of swarna bhasma where as in another study 22 gm Ghee with 248 gm honey for 1gm of swarna bhasma for neonate and infant respectively for immunomodulation and nootropic effect. Only Ghee and honey were taken as adjuvant drug in the clinical study in Control group. The specific proportion of the ingredient was adopted after a few trial and error method so as to fix the dosage in drops which is easier to administer in infants. The total combination should be triturated continuously for 8-10 hrs to make it homogenous The dose was calculated by extrapolating the adult dose. Here only cow ghee is preferred to others for *Swarnaprashana*. Although ghee anointed with medhya drugs like vachadi ghrit is also practised to derive more benefit.

Method of Administration-

The required dose of swarnaprashan is given in a dropper bottle daily morning before feeding for one or six months continuously.

Dose-

In an infant one can increase in one drop every month till 1yr. The approximate quantity of swarna bhasma ranges from 2 mg in one month to 2.4mg in one yr infant. Second study was conducted with five drop daily in neonate with no adverse action. In school children five drops daily was effective for change in school performances. For younger and older children dose of *Swarnaprashana* is fixed using Fried's and Clark's Formula. However the above dose schedule is not associated with toxicity in experimental model as well as in human trial on administration for six weeks. Traditionally the dose is calculated by making circles of the Gold with Vacha or Gold alone with unequal ghee and honey by fingers in increasing order for infant from one month till 1yr.

Age & Drop Duration:

One month 1 Drop (2 mg) 6-8 wks

Twelve month 12 Drops (2.4 mg). 6-8 wks

Above one yr 5 drops daily 8wks

DISCUSSION:

In first three month of life in an infant Gold content is an essential elements like zinc and copper.

There is no specific day mentioned for *Swarnaprashana*. It has been highlighted by Sushrut to take Swarna in an auspicious day like Pushya

nakshatra to acquire better result.

Gold nanoparticles can be absorbed through sublingual route directly into the blood stream. So mouth is regarded as a site of natural immune tolerance.

Microbiological study revealed the probable stability period of both Trial and adjuvant drugs as 3 months in hot and dry climate and an additional one month in cold season. So the prepared drug should be preserved in a Refrigerator to avoid untoward actions.^{7,8}

Pharmacological study demonstrate about that *Swarnaprashana* has cytoprotective action has impact on cell mediated immunity as well as humoral immunity suggesting immunostimulation effect.

In a pharmaco chemical study on neonates Madhu-Ghrita swarna vacha combination significant on human antibody formation evident from rise in total proteins and serum IgG.⁵

A clinical study explained the potential colloid gold as nervine using Wechsler intelligence scale after four weeks at 30 mg/day was effective for IQ score.

Blood compatible study found swarna bhasma contains gold nano particle devoid of toxicity at low doses up to 4mg/day.¹¹

Honey has inhibitory effect to around 60 species of bacteria including aerobes, anaerobes, gram positive and negative. Antimicrobial activity of honey is more with pseudomonas and Acinetobacter, shigella, salmonella E.coli. So it can prevent from neonatal sepsis if administered *Swarnaprashana*.⁸

It has got significant effect on memory and learning as evident from anti-amnesic activity in experimental study and improvement in school performance with increasing in IQ in school children.⁶

The results of renal function and LFT were found to be normal after administration for six weeks and safe to be administered in infants.

The mean IgG value after drug administration in *Swarnaprashana* group was increased against the adjuvant group.

Swarna prashanna significantly improved all the components of ITQOL (Infant toddler Quality of life) parameters.^{7,8}

In the clinical study it was observed that *Swarnaprashana* enhances the body wt. in infant compared with the control.

Episodes of common illness (Recurrent upper respiratory tract infection Diarrheal episodes and skin disorders) were infrequent or absent after swarna prasanna administration compared to placebo and adjuvant groups.⁸

CONCLUSION:

Hence looking into the results of experimental and clinical study it can be concluded that *Swarnaprashana* not only useful for Growth and Development in children but also protects childrens from recurrent illness maintaining normal health. As per textual reference to attain mental ability one should start *Swarnaprashana* for one month continuously or six months.

However the review study suggests minimum six week administration of *Swarnaprashana* in appropriate dose can enhance anabolic immunomodulation activity with normal brain development.

REFERENCES:

1. Hemraj Sharma Kashyap samhita of Vriddha Jivaka Chaukhambha Varanasi 2226 p-4-5.
2. Jadavji Trikamji Charak samhita of agnivesh Varanasi 2004 p-235.
3. Jadavji Trikamji, sushrut sharer, 10/13 chaukhambha Varanasi 2002 p-388-389.
4. ambikadatta shastri Rasaratna samuchaya of vagbhat 22/136 chaukhambha P.2003p-469.
5. Brahmananda Tripathy Sharangadhara samhita of sharangadhara6/27 chaukhambha surbharati Prakasan Varanasi2006.P-81.
6. Shrikantha Data Sushrut chi Eng.commentary chap-28/9.P-369.
7. Robert M.K liegman et al Nelson text book of Pediatrics 2007p-581. Amruta gaikward A pharmacoclinical study of effect of Swarna-vacha-Madhu ghrita on Neonates. PG Dissertation IPGTRA JamnagarIndia2011.
8. Mohan. S Raut A clinical study of *Swarnaprashana* on mental development of school going children. A dissertation YAC Kodoli MUHS Nashik-2012.
9. Jyothy K.B ' A Randomized control clinical Trial on Swarna prashan (Gold preparation) in infants wsr to its Immunomodulatory Activity a Ph.D Thesis IPGT&R.A Jamnagar—2014.

10. Poonam singh A Randomized controlled clinical Trial on *Swarnaprashana* and its Immunomodulatory Activity in Neonates. Dissertation IPGT&RA Jamnagar- 2016.
11. Bajaj S Ahmad I Fatima M Raisuddin S. & Vahora S.B Immunomodulatory activity of Unani Gold preparations used in Traditional system of Medicine Indian Journal of Medicinal research 113/92 2001.
12. Abraham et al- Effect of colloidal metallic gold on cognitive functions: A pilot study Frontier perspectives 7 39-41.
13. Sharma D.C Jha. J Sharma P Gaur B.L evaluation of safety & efficacy of a gold containing Ayurvedic drug Dept. of Biochemistry SMS medical college Jaipur India. Indian J.Exp. Biology.2001 sept 39 ((9); 892-8996.PMID(pubmed)
14. Willi Paul C.p Sharma Blood compatibility study of Swarna Bhasma(gold Bhasma) an Ayurvedic drug International Journal of Research in Ayurveda 2011.
15. www.go-vigyanausadhankendra.com. <http://dahdnic.n> Biproducts of cattle-organic manure and cow urine medicinedraught gas retrieved on 27/01/2015.
16. Bajaj Sahmad I etal Augmentation of non specific immunity In mice by gold preparations used in TSMIndian Journal Medical Research113 192 2001.

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