



Review Paper

IMMUNOBOOSTING EFFECT OF SWARNAPRASANA IN CHILDREN

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Abstract

According to Acharya Kashyapa, Suvarnaprasana Therapy is intended to boost memory, intelligence and immunity in infants. Traditionally Shuddha Suvarna has been advised to be emulsified with madhu and ghrita to obtain a fine colloidal suspension. Suvarnaprasana is becoming widely popular, being administered on the Pushyanakshatra of every month in India. The effects of Suvarnaprashana in infants mentioned in Samhitas are owing to the quick absorption & assimilation of gold nanoparticles contained in the Suvarna bindu. Research studies on nanoparticle show that they can by-pass digestion and are directly absorbed via the sub-lingual route in to the blood stream. Gold nanoparticles have been found to be absorbed in the small intestines and nanoparticles less than 58 nm in size reached the target organs via blood. Suvarnaprashana has been advised to be given on empty stomach to assure maximum absorption without interference of food. At least a gap of 2 hours should be given after eating food for administering Suvarnaprashana. It has an excellent scope in boosting community health by ensuring healthy childhood. Suvarnaprashana is a comprehensive RasayanaChikitsa, administered for the physical, mental, intellectual & Spiritual wellbeing of the children. It can be safely prescribed to infants and children up to 16 years of age. There is urgent need of standardizing the preparations, dose, duration and method of administrations. It needs to be popularized and promoted as a proactive and preventive therapy in society.

Key words: Swarnaprashana, Pushyanakshatra, Nanoparticles, Kashyapsamhita, Rasayana.

INTRODUCTION

The therapeutic use of metals and minerals was well-known to mankind since thousands of years. Gold is one of the most ancient metals even used for preventive and curative purposes. With regards to its early knowledge to Indians, an earliest reference is found during prehistoric period, mentioned as Hiranya¹ Dharana and Internal use of Hiranya (synonym of Swarna) in Vedic periods, Specially in Atharva veda.

Manusmriti, the ancient Indian literature, mentions that a Dwija (brahmin) has to undergo Samskara (purificatory) like Jatakarma with Hiranya madhusarpi (procedures at birth) and Chudakarana (ceremony of tonsure) to get rid of the impurities, which may be present in the Bija (sperm and ovum). It has also been mentioned about Swarna bhasma lehya for new born baby, which is made to lick the mixture of gold, honey, and ghee by chanting Mantra (spiritual hymns).²

At the growing stage of children, Swarna is also being recommended to be given alone or along with various herbal drugs like vacha, Sankhapuspi, Bramhi etc for procuring better Agni (digestive power and metabolism), Bala (physical strength and immunity), Medha (intellect), Varna (color and complexion), Ayu (lifespan)etc.³

Swarna has been documented as one of the important Dhatus among Sapta Loha⁴ (seven metals). It is categorized under Shuddha Loha (pure metal), which is said to be having both preventive and protective qualities. Swarna is indicated for internal use even before conception due to its Rasayana (rejuvenator) and Vajikarana (aphrodisiac) properties so as to beget a healthy baby. After conception, it is used in Pumsavana Karma (procedure done to get the desired sex of the baby and for the proper intra-uterine growth and development of the fetus). After birth, Lehana karma (supplementary feeds) and Jatakarma Samskara of swarna have been said to have a major role to play. It is mentioned in the texts of Ayurveda that any form of Swarna should be used internally only after proper purification. The type of Swarna to be used, mode of administration of different forms, their benefits and therapeutic indications are also clearly explained in Ayurvedic texts.

ADMINISTRATION:

Acharya Vagbhatta has also explained Swarnaprasana under Jatakarma Samskara, it is told that Swarna should be administered soon after birth as one of the procedures of new born care, Where a baby should be advised to lick the mixture of madhu and ghrita mixed with Swarna fortified with sacred mantras three times a day in order to attain medha (intellect), Ayu (long life), Bala (good strength).⁵ Acharya Sushruta suggests administration of Swarna along with other herbs like Shankhapuspi (*Convolvulus pluricaulis Choisy*), Kushtha (*Saussurea costus Clarke*), Vacha (*Acorus calamus L.*), etc., with honey and ghee for a period of one year.⁶ The term **Kumara** is also used in the same context that can be considered as a child of the age group in whom development of reproductive system is not yet complete. In all above references, it is said that Swarna should be administered along

with honey and ghee. A glimpse of administration of Swarna in newborn is also found in the text RasaratnaSamuchaya, ⁷ which is very similar to above references.

DOSAGE FORMS OF SWARNA PRASANA FOR ADMINISTRATION:⁸

According to Ayurvedacharya, specific forms of Swarna for internal administration are Churna (powder), Bhasma (ash), Patala/Mandala(leaf/foil) etc.

DOSE:

Specific dose of swarnaprasana has not been mentioned in Kashyapa samhita. However, he has given general dosage of children according to age in the same context from birth. A few other available references regarding per day dose of Swarna Bhasma from various texts are as listed below:

According to Rasatarangini, ⁸ -1/4 th -1/8 th Ratti (15-30 mg). According to Rasaratna Samuchaya,⁹ -2 Gunja (250 mg). According to Acharya Sushruta, Sharira sthana,¹⁰ - 1 Gunja (125 mg)/as per age.

According to Astanga hrudaya, utara sthana, ¹¹ -1 Harenu. According to Bhaishajya ratnavali, -1/32 Ratti (3.9 mg)¹²

IMPORTANCE OF LEHANA KARMA

The term Lehana depicts the act of licking or lapping up with the tongue. Children are very susceptible to infections. There are so many traditional methods available to combat it and protect from the hostile environment in which drug is mixed with honey or Ghrita are given. The process is called Lehana. It is one of the ideal ways of administering drugs in children because it increases the palatability of the drug taken with it.

BENEFITS OF LEHANA KARMA:

It enhances the growth and development by providing sufficient nutrition. It Promotes health, complexion and strength (immunity). It Protects from various infections along with improving intellect and speech. Acharya Kashyapa¹³ coined the term Swarnaprasana for administration of gold. This unique formula has been explained where gold should be triturated along with water, honey, and ghee on a clean stone facing eastern direction and made the Shishu (infant) lick the same.

BENEFITS OF SWARNAPRASANA:

Medha, Agni Bala Vardhanam (Improvement of intellect, digestion, metabolism, immunity, and physical strength), Ayushyam (Promoting lifespan), Vrushyam (Aphrodisiac), Varnyam (Enhancement of color and complexion), Grahapaham (Protection from evil spirits and microorganisms).

If it is administered for 1 month, the baby will become Parama Medhavi (highly intelligent) and "Vyadhibhir Na Cha Drusyate" (will not be affected by any disease). If it is administered for 6 months, the baby will become "Srutadhara" (will be able to remember the things, which are just heard). All the benefits are indicating the

enhancement of all favourable factors required for proper growth and development of children, which is considered to be rapid during Shaishavavastha (infancy).

ACCORDING TO SAFETY PURPOSE:

It is very important in children that even slight negligence in the administered drug can cause serious adverse effects due to their highly sensitive body systems, which are still under rapid growth and development. Ayurveda Acharya were perceptive of all the serious adverse effects if gold is administered in impure form which is evident from the explanation of Shodhana (purification) of Swarna in specific. It is cited that if Swarna is administered without appropriate processing, it will destroy potency and strength of the individual and it will lead to manifestation of a group of diseases.¹⁴ If Swarna is administered in impure form, it can also cause mental disturbances and even death.¹⁵

DISCUSSION:

According to a pharmco-clinical study on neonates, the combination of Madhu-Ghrita-Swarna-Vacha show a significant effect on immunity, which was evident by triggering the response of immunological system by a rise in the total proteins and serum IgG levels.¹⁶ Another study reveals colloidal gold uptake in gastrointestinal tract is dependent on particle size, smaller particles cross the gastrointestinal tract more readily. As a general tonic, it can be administered in any age group.

Benefit of Swarnaprasana as an immuno-modulator, it can be administered in children in early ages as this period until one year is considered to be the most vulnerable time for infections due to immature immune system. Pharmacological studies showed specific and nonspecific immune responses, which were modified in a positive manner.

Swarna Bhasma in the form of nanoparticles comprises gold-containing particles that are globular and have an average size of 56-57 nm.¹⁷ In blood compatibility study, it was found that Swarna Bhasma contains gold nanoparticles with crystallite size 28-35 nm and was 90% pure gold.¹⁸ Swarnaprashana can be given from birth and specifically for a period of 1 or 6 months continuously as mentioned in the classic. In a study colloidal gold was found to improve cognitive functioning, which was measured by IQ scores.¹⁹ It also had a stimulatory effect on peritoneal macrophages, which may be helpful to fight against infections. Swarnaprashana can be done from infancy to adulthood with a wide range of actions influencing the growth and development of a child. Considering all the above cited references it can be said that the action of this noble metal swarna is acting at multiple levels like as a general health promoter or in specific to enhancement of intelligence, metabolism, immunity, physical strength, fertility, complexion, etc.

CONCLUSION:

Shaishaba Avastha is the right period from which it can be started. Children are more vulnerable to infection because the less or under developed immune system. During this precious time period of children our attempt should be specified to prevent diseases and to enhance physical, mental, social wellbeing. The Rasayana and Lehana drugs used

in appropriate dose with suitable vehicle (Anupana/Sahapana) are always more effective. Swarnaprasana therapy is fulfilling the both Lehana and Rasayana effect on children. So for the preventive and curative purpose of children's health swarnaprasana therapy is very indispensable. The selection of the form of Swarna should be based upon the factors such as, better bioavailability, no adverse reactions, easier in preparation and administration & standardized by scientific studies.

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