



Suvarnaprashan An Ayurvedic Immunity Booster For Child – A Review

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Abstract

Covid-19 and many hazardous diseases calls for immunity boosters especially among children and the young generation. Any diseases may be fatal to child only if there immunity level is low or compromised. For such purpose Ayurvedic preparations are only safer and side effect less need to build immunity naturally. Swarna Prashan is a safe ayurvedic combination that is beneficial for the normal growth and development of a child. Swarna Prashan is introducing Swarna alone or along with herbs in the liquid form as an oral immunization to children. Swarna Prashan is one of the kiyakrma included in the Jatakarma samskaras in Ayurveda. Swarna Prashan is initiated from infancy till Adolescence. To review the components of swarnaprashna, clinical trials, and evidence of benefits for children. Ayurveda has deep roots for the Current and old method of introduction of Swarnaprashna among children below 16 years of age group in India. Overall results of all studies showed improved growth and development after the introduction of Swarna Prashan within a year without any side effects and a happy childhood which shows not only health but also wellbeing by positive effects on physical, Psychological as well as mental and spiritual health.

Keywords: Ayurveda, Suvarnaprashan, Pushyanakshatra, Immunity, Physical growth.

Introduction

Acharya Kashyapa described Swarna Prashana as Jatkarma Sanskara for the neonatal care in Lehan. Adhya of Sutra Sthana in his written before 600 B.C. He explains the preparation of Swarna Prashana, one should sit facing towards the Poorva Disha (east direction), take and rub it against the hard surface like stone with water and then mix with Madhu given for licking. This is called as Swarna Prashana and benefits of this are improvement in digestion, improvement of intellect, Agni (improvement in digestion), Bala Vardhanam (improvement in strength and immunity), Ayu Vardhanam (improvement in lifespan), Mangalya, Punya (auspicious) Graha ham (relieves bad evil). By administering Swarna to child for one month, he becomes Param Medhavi (super intelligent) and by administering for up to six months, person becomes Shrutiadhara. The appropriated day for Swarna Prashana is Pushya Nakshatra.

Materials & Methods

Source of Data Many databases including Ayurvedic text book, Modern text books Pub med, Research Gate, Review of previous articles and API will be reviewed with the key words like Suvarnaprashan Samskar, Samskar, intellectual performance, immunity immunization. Suvarnaprashan in Ayurved Acharya Kashyap has described the Process of Suvarnaprashana in detail. In Suvarnaprashan Suvarna is rubbed with honey, and water on a washed stone and then, licked while holding the baby's face in the direction of East. In lehadhyaya the method and properties of Suvarnaprashan are described as follows

- Medha-agni-bala-vardhanam (improves intelligence, digestive power, and strength of body),
- Ayushya (improves life span)
- Mangalya (auspicious)
- Punya (sacred)
- Vrishya (aphrodisiac)
- Grahapaham (relieves all bad effects of grahas.)

If Suvarnaprashan administer to child for one month, child becomes Parammedhavi means Genius and if administering for six month child become Shrutiadhara he can remember all things whatever he listen. According to Acharya Vaghbhatta Suvarnaprashan is paste of Aindri, Brahmi, Shankhpushpi and Vacha, Harenu in equal quantity, mixed with honey and ghee, sanctified by touching the tip of kusa grass with sacred hymns and kept in a plate resembling asvattha leaf, made of gold, should be given to the child to lick in order to encourage knowledge, long life and strength. In Sushrut Samhita Acharya Sushrut explain four formulations of Suvarna which enhances intellectual power and overall growth of baby. These are

- Kustha, Vacha, Brahmi, honey and Ghrita
- Paste of Bhrami and Sankhpushpi
- Arkapushpa, Vacha with Ghrita and honey.
- Kaidarya and Shwet Durva with Ghrita

Dosage: The accurate dose of Suvarnaprashan is not defined in the literature by any acharyas but we can measure the total dose of Suvarnaprashan by calculating the dose of Suvarna bhasma. References from the separate text which

- 1/8th-1/4th Ratti (15-30 mg) Suvarna Bhasma
- 2 Gunja (250 mg)
- 1 Gunja (125 mg)/as per age
- 1 Harenu.
- 1/32 Ratti (3.9 mg).
- 15.5-62.5 mg of Suvarna Bhasma.

Ayurvedic Properties of Gold According to Ayurvedic literature- It has the Following Properties

- **Rasa:** Kashaya, Tikta, Madhura
- **Guna:** Guru, Snigdha
- **Veerya:** Sheeta (cold), Picchila
- **Vipaka:** Madhura Suvarna bhasma is sweet in taste, strengthens the body, beneficial for heart and good for eyes, it also improve intellectual power, due to its property to pacify all doshas it acts as a rasayan, and it remove all toxic substance from the body and good for skin. It is also helpful to cure many diseases as anemia, tuberculosis, diarrhea, colitis, heart disease, murcha etc.
- **Pharmacological Property of Gold** Suvarna (gold) bhasma has been used in traditional Indian ayurvedic medicine for many clinical disorders, including bronchial asthma, rheumatoid arthritis, diabetes mellitus and diseases of the nervous system. Multiple studies on gold nanoparticles showed that to influence the activation of T cells, it conjugates with antigen. As a drug carrier, gold nano particles serve as a major demonstration of the multifunctional capacity for drug delivery. Suvarna bhasma, combined with honey, ghee or milk, should usually be administered orally. Several pharmacoclinical studies indicate that gold has antioxidants and restorative properties. Gold nano particles have adjuvant properties as well. It functions as an antigen carrier and stimulates macrophage phagocytic activity and affects lymphocyte function. It is

Modern review of gold as Immunomodulator

In Ayurvedic Bhasmas, the gold is used in the form of purified metallic fine powder (probably as nanoparticles) or red colloidal solution where both are prepared by elaborate treatments including using herbal extracts and even with other metals. The success of preparing a genuine Ayurvedic Bhasma depends on the technique of heat treatment (called as Putas) to the homogeneous paste prepared by mortaring microfined metal thoroughly mixed with appropriate plant juices. Normally a large number of calcination cycles are necessary and for each cycle the process of mortaring the microfined metal and plant juice is to be freshly repeated. Therefore, synthesis of these Bhasmas is a complicated and tedious procedure and Ayurvedic experts prepared these Bhasmas on certain SOP and GMP norms notified by Dept. of AYUSH for the same. Researchers have also reported the mode of action of metal nano particles in detail. Harvard Medical School researchers report in the Feb. issue of Nature Chemical Biology that special forms of gold, platinum, and other classes of medicinal metals

work by stripping bacteria and virus particles from the grasp of a key immune system protein. MHC class II proteins are associated with autoimmune diseases. MHC class II proteins normally hold pieces of invading bacteria and virus on the surface of specialized antigen presentation cells. Presentation of these pieces alerts other specialized recognition cells of the immune system called lymphocytes, which starts the normal immune response. Usually, this response is limited to harmful bacteria and viruses, but sometimes this process goes awry and the immune system turns towards the body itself causing autoimmune diseases such as Juvenile diabetes, Lupus, and rheumatoid arthritis.

During their search through thousands of compounds they found that the known cancer drug, Cisplatin, a drug containing the metal platinum, directly stripped foreign molecules from the MHC class II protein. From there, they found that platinum was just one member of a class of metals, including a special form of gold, that all render MHC class II proteins inactive.

In subsequent experiments in cell culture, gold compounds were shown to render the immune system antigen presenting cells inactive, further strengthening this connection. These findings now give researchers a mechanism of gold drug action that can be tested and explored directly in diseased tissues. Such kind of mode of action for Ayurvedic Swarna Bhasma is urgently needed for more scientifically validated therapeutic application of all these formulation containing Swarna Bhasma of Ayurveda. Many authorities of subject are continuously indicating cautions in application of nano particles. Development of novel nano particles must be followed by the assessment of their potential risks on life and environment, and possible remedial measures.

therefore responsible for its immunomodulating effect. Gold stimulates the respiratory activity of reticuloendothelial cells and also demonstrates antistress activity by conjugating with low and high molecular weight antigen. A pharmacoclinical research performed on rat at different point of time in restraint induced stress. Prior to this stress induction, rats were treated with Swarna Bhasma. The dosage of Suvarna Bhasma was 25 mg / kg orally for 10 days. To evaluate brain catecholamine, serotonin and plasma corticosterone levels, the HPLC technique was used. Catecholamine levels in the brain (norepinephrine, epinephrine and dopamine). 5 HT and plasma corticosterone were near to be normal.

Action of Madhu

Madhu is manufactured from pollen grains by bees. The reason behind adding Madhu in Swarna Prashana is that when Madhu is administered in low doses to new-born, the child gradually develop resistance for allergens and it remains unaffected by allergic disorders. Raw honey possesses nootropic effects, such as memory-enhancing effects, as well as neuropharmacological activities, such as anxiolytic, antinociceptive, anticonvulsant, and antidepressant activities. The belief that honey is a memory-boosting food supplement is actually ethnotraditional as well as ancient in nature. For instance, honey is reported to be an important component of Brahma Rasayan, an Ayurvedic formulation that is prescribed to extend the lifespan and improve memory, intellect, concentration, and physical strength. One established nootropic property about honey is that it assists the building and development of the entire central nervous system, particularly among new-born babies and Preschool age children, which leads to the improvement of memory and growth, a reduction of anxiety, and the enhancement of intellectual performance later in life.

Additionally, the human brain is known to undergo postnatal development with the obvious maturation and reorganization of several structures, such as the hippocampus and cerebral cortex. It has been reported that this postnatal development occurs through neurogenesis, which occurs predominantly during childhood, and this development can also extend into adolescence and even through adulthood. Empirical, but striking, evidence supporting this concept was provided by an experiment that was conducted on postmenopausal women; those who received honey showed improvements in their immediate memory but not in immediate memory after interference or in delayed recall. In another study, the normal diet of two-month-old rats was supplemented with honey, and their brain function was assessed over a one-year period. Honey-fed rats showed significantly less anxiety and better spatial memory throughout all stages compared with the control group of rats. More importantly, the spatial memory of honey-fed rats, as assessed by object recognition tasks, was significantly greater during later months. According to Ayurveda honey is sweet and astringent in taste, cold in potency and it has

properties like Stroshodhan, Yogavahi and Medhya. Due to its Yogvahi property it can augment the activities of all the drugs given with it.

Action of Ghruta

Ghruta has important medicinal value in Ayurvedic texts. It increases mental ability and it enhances the function of drug added with it. It helps in growth and development of child. It also provides nutrition to new-born until lactation starts properly. Medicated ghee, one of the potent poly herbal dosage forms has been prescribed to treat different CNS disorders. These lipid base formulations might have potential to cross blood brain barrier and show beneficial effects on brain tissue. Vachadi Ghruta is one of the medicated ghee formulations claimed in Ayurveda to improve cognition (intellect and memory). Eight herbal drugs of Vachadi Ghruta have been reported for their Antipsychotic, Anti-stress, Antidepressant, and Nootropic activities. It is assumed that synergism of these herbal drugs in preparation of Vachadi Ghruta and extraction of lipid soluble extractives of these drugs in Go Ghruta (Cow Ghee) may show cumulative positive effect on cognition and helps to prevent neuropsychiatric disorders. Vehicle used in preparation of Vachadi Ghruta is Go Ghruta which makes the preparation highly lipid soluble, then easily crosses blood brain barrier. Thus, helps to carry active components to specific target site (CNS). Ayurveda has considered ghee to be the healthiest source of edible fat possesses beneficial properties and facilitate the positive effect of herbal drugs added to it in preparation of medicated ghee. It is well documented that Go Ghruta promotes longevity and protects normal functioning of body entities as well intellect and memory.

Critical Review of Vachadi Ghruta

Ayurvedic pharmacology explains actions of each ingredient of Vachadi Ghruta according to their properties. These drugs possess Ushna (hot), Teekshna (penetrating) properties and Vata-Kaphashamak activities. As per ayurvedic theory it is said that the cumulative effect of these ingredients is seen in final product i.e., Vachadi Ghruta. Hence probably Vachadi Ghruta is useful in the treatment of memory impairment occurred due to Kapha-Vata dominance and can be used to improve intellect and memory. Ghee is included in Chatushsneha which is "Sarvasnehottama" (excellent amongst three other sources). Ghee has specific property i.e., "Samskarasya-Anuvartanat" means enhances its properties along with the properties of other drugs mixed with ghee without losing its own natural properties. Cow ghee has its own importance amongst the ghee of other animal ghee drugs.

Suvarna prashan is an ayurvedic medicine for children 0- 16 years mainly given to increase immunity, recurrent illness, concentration and memory. Suvarnaprashan is given to children in morning daily/ on every pushya nakshatra for at least one year Suvarnaprashan Samskar as Immunomodulator A research on the combination of Madhu-GhritaSuvarna-Vacha in infants was performed, the study shows strong immune system response by an increase in total protein and serum IgG levels. Another pharmacological clinical research was performed on gold nano particles, which showed that when faced with an inflammatory threat, gold nano particles modulate the immunological response. The therapeutic application of nanoparticles in diseases involving inflammatory problems is demonstrated by these findings. Several gold nano particle studies show it conjugates with antigen to affect T cell activation.

Benefits of suvarna prashan

1. Suvarna prashan increases immunity power and develops resistance against common infections, thus prevents children from falling ill very often.
2. It builds physical strength, body growth (height, weight) in children and enhances physical activities, and also improves stamina for the same.
3. Regular doses of Suvarna prashan improves child's intellect, grasping power, sharpness, analysis power, memory recalling in an unique manner.
4. It kindles digestive fire, improves digestion and decreases related complaints.

5. Suvarna prashan also improves child's appetite.
6. It helps to nurture early developmental milestones.
7. It develops a strong defense mechanism in kids which acts as a safety shield against diseases and complaints occurring due to seasonal change and other prevailing infections.
8. It helps body to recover early in case of any illness.
9. Reduces anxiety, aggressiveness, irritability and attention seeking behavior.

Discussion

Brain development is continued up to 2 years and Suvarnaprashan Samsakara can accelerate brain growth at this point. According to Kashyapa Samhita, administering Suvarna to a child for one month makes him Param Medhavi (super intelligent) and becomes Shruta Dhara (can remember everything she /he hears) by administering for up to six months. According to literary study gold strengthens the body, beneficial to the heart (hridya), nice to the eyes (chakshusaya), boosts intellectual capacity, rejuvenation (rasayan), even helpful in curing many diseases such as anaemia, tuberculosis, diarrhoea, colitis, heart disease, etc. Madhu in Suvarnaprashan mitigate the increased Kapha Dosha in URTI. It also minimizes the irritability of child which is produced due to URTI. Many pharmacological studies show that gold nano particles aid in T cell activation, serve as a carrier of certain drugs also and having antioxidant and restorative properties. Suvarnaprashan Samskar can minimize recurrent infection attacks in malnourished children, and help to improve digestive and metabolic capacity. So, we may infer from the above discussion that gold (Suvarna) has several physical and mental characteristics that are helpful for both rising children and adults. By integrating the physical (Shareerik) and mental (mansik) roles of the human body.

Conclusion

Suvarnaprashan is Ayurvedic lehana medicine. It shows increase in weight and other anthropometric measurements of children more than other normal growing children. Suvarna Prashan was also proven more effective in maintained general health by increasing immunity level of the body. A critical analysis of all available facts suggest very prominently that Swarna Bhasma is a wonder drug of Ayurveda which may be calibrated on parameters of contemporary science as researchers are adding new substantiated vision in case of Gold compounds all across globe in service of humanity. Learning and memory are the most exclusive and basic functions of the brain. Synaptic plasticity is thought to be crucial for information processing in the brain and underlies the processes of learning and memory. Honey has an appreciable nutritional value. Raw honey possesses anxiolytic, antinociceptive, anticonvulsant, and antidepressant effects and improves the oxidative status of the brain. Vachadi Ghruta possess a tremendous pharmacological and therapeutic potential. The reason behind the use of these ingredients of Vachadi Ghruta is justified from the research findings of various experimental studies on both human beings and animals. Vachadi Ghruta and its ingredients are proved to possess Nootropic, Anticonvulsant, Antidepressant, Antiepileptic, Antipsychotic, Antistress, Antioxidant, Immunomodulatory, Anticancer, Cardioprotective, Hepatoprotective, and many other therapeutic uses which are still to be explored. Suvarnaprashan Samskar offers multidimensional Protection of child. It can increases child's immunity and intellectual strength. Gold has anti-aging property (Rasayana) and site-specific drug targeting (yogavahi) potential. Further clinical trials are required to evaluate Suvarnaprashan's efficacy and safety profile in healthy and diseased children.

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