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Role of *SwarnaPrashan* to Boost Immunity in Children

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ABSTRACT

Swarna Prashan Sanskar mentioned under shodash sanskar is an ancient ritual. SwarnaPrashana means to administer Swarna (gold) in liquid form along with honey, ghee and some herbal medicines. It improves the intellectual power and enhances the non-specific immunity of the body. **Materials and Methods**-Many databases including research articles from Pub med, J-AIM, research gate, ayurvedic text books were considered with the key words like ‘Swarna Prashan Sanskar’, ‘Sanskar’, ‘Immunity’, ‘Immunization’. **Results**-In Swarna Prashan we use Swarna bhasma which is in form of nano particle which is easily absorb by small intestine and would reach the target site of action through blood. Several studies show Swarna bhasma showed no toxicity as judged by SGOT, SGPT, Serum creatinine and Serum urea level and histological studies. Gold ash is also effective in motor neuron disease in small doses. Gold is a good immunostimulant and also stimulate phagocytic index of macrophages. Swarna bhasma also prevents free radical injury to tissues and have nootropic, antiacetylcholinesterase, analgesic and antistress activity. Honey has an inhibitory effect to many bacteria and also develops resistance against allergens remaining unaffected by them. Ghee has Omega 6 and Omega 3 fatty acid that is good for neurological and brain development. **Conclusion**-According to Ayurvedic literature it would possess properties like madhura, rejuvenate, immunity booster, improves complexion and growth of the body, accelerate growth of the brain and improves memory, also increase digestion power of the body.

KEYWORDS

Swarna, Prashan, Immunity



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INTRODUCTION

Sanskar are performed for the physical, social, and religious development. The word *Sanskar* is derived from root word 'Kri' with 'Sam' *upsarga*, which is being used for several meanings for example in sense of education, cultivation, a purificatory sacrament or ceremony to enhance the qualities. In *Ayurveda*, the word *sanskar* is "*Sanskarao hi Gunaantradhanum*" means incorporating the specific qualities (in various dravyas or medicines as *rasa aushadhi*)¹.

In hindu dhrama granthas about 16-40 *sanskar* are described, but in practice 16 *sanskars* are performed². *Jatakarma Sanskar* is the first *sanskar*, which is described by Acharya Charaka. In *Jata karma sanskar* honey mixed with ghee should be licking to new born child³. Other Acharyas said that it can be mixed with *Swarna* also & it boost the immunity of children many folds.

From ancient time, *Swarna Prashan* has been effectively done for boosting the immunity of neonate, which has been largely replaced by costly vaccines. Immunity means capacity of body to limit the spread of infection and decrease the intensity of disease. In ayurved immunity can be correlated with *vyadhikshamtava*.

Vaccines produce active acquired immunity means immunity to a particular diseases, whereas *SwarnaPrashan* produces non-specific immunity means it activates non specific immune cell that respond to various antigen and protect the body from various diseases. It is a most challenging question for parents and to the government too, how to preserve and enhance the physical, mental health and immunity of children where they suffers from adverse effect of modern medicines, improper life style, excessive intake of junk foods and preservative foods, and exposure of electronic distraction. In *Ayurveda Swarna Prashana Sanskar* is in practice for more than of 1000 years. It enhances the physical and mental health of children without any side effects. Now a days, *swarna prashan sanskar* is promoted by many ayurvedic practitioner and by the government of few states. In many places in India *swarna prashan sanskar* is termed as *Swarna Amrita Prashana*, *Swarna Bindu Prashana*⁴.

AIM

To study benefits of *Suvarna Prashana Sanskar* in details.

MATERIALS & METHODS

Many databases including research articles, Pub med, J-AIM, Research Gate, , Ayurved



research data base (6th edition from 2001-2014 thesis included), ayurvedic, various modern text books and API were considered reviewed with the key words like *Swarna Prashan Sanskar, Sanskar, intellectual performance, immunity, immunization.*

SWARNA PRASHAN IN AYURVED-

Acharya Kashyapa described the *Swarna Prashana* vidhi in detail with its benefits. As per Acharya Kashyap, In *Swarna Prashan Swarn* is rubbed on a washed stone with honey, ghee and water and then while keeping the baby's face towards East Swarn is given to child for licking. The benefits of this Sanskar is-

सुवर्णप्राशनं ह्योत्तमेधाग्निबलवर्धनम्। आयुष्यं
मंगलं पुण्यं वृष्यं वर्ण्यं ग्रहापहम्॥
मासात् परममेधावी व्याधिभिर्न च दृश्यते।

षड्भिमासैःश्रुतधरः सुवर्णप्राशनान्द्रवेत्॥
(काश्यपसंहिता, सूत्रस्थानम्)

Medhaagnibalvardhanam means improvement in intelligency, digestive power, and strength of body, Ayushya means improvement in life span, Mangalya means auspicious, Punya means sacred, Vrishya means aphrodisiac, Grahapaham means relieves all bad effects of grahas. If *SwarnaPrashan* administer to child for one month, child becomes *Parammedhavi* means Genious and if administering for six months, child becomes *Shruta Dhara* means

he can remember all things whatever he listen⁵.

2. Acharya Vagbhatt described gold licking is as follows⁶-

Paste of aindri, brahmi, shankpushpi and vacha ,one harenu in quantity, mixed with honey and ghee, sanctified by touching with tip of kusa grass with sacred hymns and held in a plate resembling in asvattha leaf, made of gold, should be given to the child to lick to promote intelligence, long life and strength.

3. Four formulation of *Swarna are described by Acharya Sushruta* which enhances intellectual power and overall growth of baby. These are following combination of *Swarna* which are given below-

- Kustha, Vacha, Brahmi, honey and Ghrita
- paste of Bhrami and Sankhapushpi should
- Arkapushpa, Vacha with Ghrita and honey.
- Kaidarya and Shwet Durva with Ghrita⁷.

Dosage-The accurate dose of *swarnaprashan* is not described by any acharyas in literature, but by calculation of dose of *swarna bhasm* we can calculate overall dose of *swarnaprashan*. References from the various text which are listed –



- $1/4^{\text{th}}$ – $1/8^{\text{th}}$ *Ratti* (15–30 mg) *Swarna Bhasma*⁸
- 2 *Gunja* (250 mg)⁹
- 1 *Gunja* (125 mg)/As per age¹⁰
- 1 *Harenu*¹¹
- $1/32$ *Ratti* (3.9 mg)¹²
- 15.5–62.5 mg of *Swarna Bhasma*¹³.

Ayurvedic property of gold-¹⁴ According to Ayurvedic literature it would possess the following properties –

Rasa-kashaya, Tikta, madhura, katu

Guna-guru, snigdha, picchila

Veerya-sheeta (cold)

Vipaka-madhura (sweet)

Property-Swarna bhasma is sweet in taste, strengthen the body, beneficial for heart and good for eyes, it also improve intellectual power .due to it has the property to pacify all *doshas* it as a *rasayan*, and helpful in *punsamvan sanskar*, 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.

Pharmacodynamic property of gold-

In the traditional Indian ayurvedic medicine Swarna bhasma

~~Swarna(gold)bhasma~~ has been utilized for several clinical disorders, including bronchial asthma, rheumatoid arthritis, diabetes mellitus and nervous system diseases¹⁵⁻¹⁸. Several studies on gold

nanoparticles revealed that it conjugates with antigen to influence the activation of T cell. Gold nano particles act as drug carrier an important demonstration of potential of multifunctional for drug delivery. *Swarna bhasma* should be generally administered orally mixed with honey, ghee or milk. Many pharmacoclinical studies shows that gold has antioxidant and restorative property¹⁹. Gold nano particles also have adjuvant property. It act as an antigen carriers and activate phagocytic activity of macrophages and influenced the function of lymphocytes. Thus it is responsible for their immunomodulating effect. By conjugating with low and high molecular weight antigen, gold stimulates respiratory activity of cells of the reticuloendothelial and also show antistress activity²⁰. A pharmacoclinical study done on rat at different point of time in restraint induced stress .Prior to this stress induction, rats were treated with swarna bhasm. The dose of *swarna bhasm* was 25 mg/kg orally for 10 days. HPLC technique was used to determine brain catecholamine, serotonin and plasma corticosterone levels. The level of brain catecholamines (norepinephrine, epinephrine and dopamine), 5 HT and plasma corticosterone was near to be normal²¹.

Toxicity Study done on gold-



A toxicity study was done on mice with nanoparticle of 500nm for 15 days. Long term survival and without toxicity was found in histological specimen of mice tissue (lungs, kidney, liver and spleen)²².

Pharmacodynamic property of honey-

Honey has hydrogen peroxide and gluconic acid which are antibacterial in action²³. These two factors originated from dissolution of sugar by glucose oxidase of honey²⁴⁻²⁶. Honey also develops resistance against allergens remaining unaffected by them. Due to its high sugar content it has high osmotic pressure unfavourable to bacterial growth and proliferation. Its aromatic and phenolic compounds may contribute in overall antimicrobial activity²⁷.

Pharmacodynamic property of ghee-

Ghee pacifies *Pitta* and *Vata*, *ghee* is beneficial for *rasa*, *sukra* (semen) and *Ojas*, it pacifies burning sensation, it softens body, and improves voice and complexion. *Ghee* has omega 6 and omega 3 fatty acid which are good for neurological health and brain development²⁸.

Benefits of Pushya Nakshtra-Due to nourishing effect of *Pushya Nakshtra* all ayurvedic medicines are administered in this auspicious nakshtra²⁹. The action of drug on this day is very fruitful. On this day body is in a better position to absorb the drugs for its optimum benefits and the drugs

used are more potent than the usual. In ayurved this day is best for collection of drugs.

IMMUNOMODULATION EFFECT OF SWARNA PRASHAN SANSKAR-

A situation in which you are protected against disease is called body strength or we can say immuned. In ayurved it is coined by term *Vyadhikshamatva*. Body strength or immunity can be correlated with *Ojas* that is *bala* (strength) of the body. *Bala* is of three type *Sahajakalaja* and *Yuktikrita*. In *Yuktikrita bala* one can increase *Ojas* by *Yukti*. *Swarnaprashan* is one of the methods which increase *Sahaja bala* or *Ojas* of the body without any adverse effect. A study was done on Madhu-Ghrita-Swarna-Vacha combination in infants, the study shows good response on immunological system by a rise in the total proteins and serum IgG levels³⁰. Another pharmco clinical study was done on gold nano particles), which showed that gold nano particles modulate the immunological response when presented with an inflammatory challenge. These results indicate the therapeutic usage of nanoparticles in diseases which involve inflammatory challenges³¹. Several studies on gold nano particles reveal that it conjugates with antigen to influence the activation of T cell.



DISCUSSION

Brain development is continued up to 2 years and at this stage by Swarnaprashan Sansakar we can accelerate the growth of brain. According to Kashyapa Samhita administering Swarna to a child for one month, makes him Param Medhavi (super intelligent) and by administering for up to six months, person becomes Shruta Dhara (can remember whatever she/ he hears)³². As per literary review gold strengthens the body, beneficial for heart (hridya), good for eyes (chakshusaya), improves intellectual power, rejuvenative (rasayan), also helpful to cure many diseases as anemia, tuberculosis, diarrhea, colitis, heart disease, etc³³. Many pharmacoclinical studies shows that gold nano particles helps in the activation of T cell, act as a drug carrier, has antioxidant and restorative property³⁴. Gold has adjuvant property, it has immunomodulating effect. It improves the recurrent attacks of common cold, fever and reversible asthma. In malnourished children, Suvarnaprashana Sanskar may reduce the recurrent attacks of infections and help to improves digestive and metabolic power. So from the above discussion we can conclude that gold (swarna) has many physical and mental qualities that are beneficial for growing child as well as adult.

CONCLUSION

Swarnaprashan Sanskar provides multidimensional health by balancing the physical (Shareerik), mental(mansik) functions of the human body. SwarnaPrashana boosts the immunity as well as intellectual power of a child. Gold has anti-aging quality (Rasayana) and ability to target drugs to the site (yogavahi). Further clinical studies need to be undertaken to determine efficacy and safety profile of SwarnaPrashan in healthy and diseased children.



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