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SWARNAPRASHANA TO SWARNAMRITAPRASHANA: EXPERIENCE INSPIRED MODIFICATION THROUGH AGES

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ABSTRACT: Swarna has been used all through these ages in various forms such as raw gold, pure metal, gold foils, red colloidal solution, Swarna Patra, Swarna Parpati and bhasma and other forms in varying dose and stands time tested. The procedure in which Swarna along with herbs are taken in the form of liquid, semi-solid or paste form by children orally is referred as Swarnaprashana. Swarnamritaprashana is formulated by modifying Swarnaprashana with scientific inputs and references from Ayurvedic classical literatures. Guduchi (Tinospora cordifolia (Thunb.) Miers), Brahmi (Bacopa monnieri(L.) "Vacha" Pennell), (Acorus calamus L.), Jatamamsi (Nardostachys jatamansi (D. Don) DC.), Ashwagandha (Withania somnifera (L.) Dunal), Shankhapuspi (Convolvulous pluricaulis Choisy), Yastimadhu (Glycyrrhiza glabraL.), Pippali (Piper longum L.) and Maricha (Piper nigrum L.) are the constituents of Swarnamritaprashana. Since 2009 May, Swarnamritaprashana has been administered once in a month at 12 centers at the Sri Dharmasthala Manjunatheshwara College of Ayurveda and Hospital, Hassan, Karnataka, India as a public health initiative. The current paper details how Swarnaprashana has got transformed into the current form of Swarnamritaprashana by way of modification happened through ages.

INTRODUCTION: Gold has always been widely used in medicinal preparation since ancient times as it is considered to be therapeutically effective. The use of gold in single or along with various herbal components for ailments can be traced throughout ancient Ayurveda literature. The health care system prevailed in ancient world have hence suitably and efficiently used Swarna after properly understanding the potential of the same.



Since then, Swarna has been used to advance long life and battle the aging process.³ Moreover it had helped in enhancing strength and vigour in children. Swarna has been used although these ages in various forms such as raw gold, pure metal, gold foils, red colloidal solution, Swarna Patra, Swarna Parpati and bhasma and other forms in varying dose and stands time tested.⁴

Bhasmas of metals (incinerated metal) possess Rasayana (Rejuvenation) property and thereby improves immunity and firmness of the body. Swarna Bhasma (incinerated gold), is indicated for internal administration and is Kantikara (complexion) and also increases Medha (intellect), Smriti and Mati (attentiveness). Swarna bhasma has been therapeutically made of use in

bronchial asthma, worm infestation, rheumatoid arthritis, schizophrenia, anorexia, diabetes mellitus, ophthalmic disorders, tuberculosis, anemia, cough, memory, grief, fever, mental stress, dyspnoea, debility, sterility, poisoning, muscular dystrophy and nervous system diseases. ^{7 - 8} The oral administration of swarna bhasma with honey, milk or ghee in numerous forms have been mentioned for usage in children. ⁹

Swarnaprashana: The procedure in which Swarna along with herbs are taken in the form of liquid, semi-solid or paste form by children orally is referred as Swarnaprashana. 10 Swarna Bhasma is used as a chief ingredient in Swarnaprashana for neonates and children.¹¹ The practice of Swarna Prashana is conventionally followed as a cultural practice in India. Swarnaprashana is a unique practice mentioned under Jatakarma Samskara in Ayurveda classics. 12 Amongst all Acharyas who have very well explained regarding Swarnaprashana, the contribution of Acharya Kashyapa is unique where administration of processed gold in children is mentioned even thousands of years back. Acharya Kashyapa has given clear cut idea about Prashana. its procedure, indications, formulations. 13 indications, ingredients and Swarnaprashana is prepared by triturating Swarna along with honey, ghee and water on a pre-washed and clean stone facing eastern direction and made the infant lick the same. 13

He has explained evidently the administration of Swarna (gold) in children for Medhavardhana (improving intellect), Agnivardhana (promoting digestion metabolism), and Balavardhana (promoting immunity and physical strength), (Promoting longevity), Ayushyam Mangalam (auspicious), Punyam (Virtuous), Varnya (improves complexion), Vrishya (fertility), Grahapaham organisms).¹⁰ (protection against infectious Maasathparamamedhavi (if fed for one month, child will be extremely intelligent), Vyadhibhirna cha drishyate (will not be attacked by any disease) and Shadbhirmasesruthadhara (if fed for 6 months, child will be able to retain whatever he hears) are the classically detailed benefits of Swarnaprashana.¹⁴ As per Acharya Sushruta, Swarna has to be administered along with Madhu (honey) and Ghrita (ghee) in one among the procedures of Jathakarma samskara. 15 Acharva Sushruta has advised its use

after garbhambu vamana, but before abhyanga and snana. He also added that, Swarnaprashana helps in development of a child both physically and mentally, promotes Bala and budhi (memory).¹⁶

Acharya Vagbhata has also explained Jatakarma Swarnaprashana under Samskara, wherein a baby should be made to lick the mixture of madhu and ghrita mixed with Anantha (Swarna) fortified with sacred mantras three times a day inorder to attain medha (intellect), ayu (long life) and bala (good strength). 17 Acharya also mentioned Hemaadiprashana wherein swarna is mentioned with synonyms-Hema, Kanchana & Kanaka, along with herbal drugs mixed with madhu and ghritha, when consumed for a period of one year bestows good Vapu (body growth), Medha (intelligence), Bala (strength), Varna (colour) and Subha (goodness).¹⁸

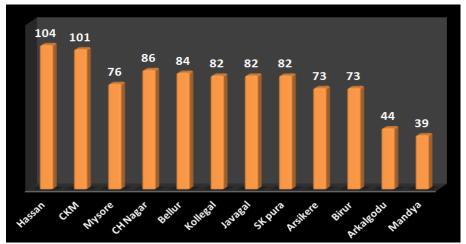
Transformation to **Swarnamritaprashana**: Swarnamritaprashana is formulated by modifying Swarnaprashana with scientific inputs references from Ayurvedic classical literatures. 13 This herbo-mineral formulation is being prepared Dharmasthala in the pharmacy of Shri Manjunatheshwara College of Ayurveda and Hospital, Hassan, Karnataka since 2009. Guduchi (Tinospora cordifolia (Thunb.) Miers) 19 green stem Kashaya (water extract) was prepared reducing to quarter. In 200ml of Guduchi Kashaya, 50 ml of Ghee was added along with Brahmi (Bacopa monnieri (L.) Pennell), ²⁰ Vacha (Acorus calamus L.), ²¹ Jatamamsi (Nardostachys jatamansi ²² Ashwagandha (Withania (D. Don) DC.), Shankhapuspi Dunal), (L.) somnifera (Convolvulous pluricaulis Choisy), 24 Yastimadhu (Glycyrrhiza glabraL.), 25 Pippali (Piper longum L.) ²⁶ and Maricha (*Piper nigrum* L.) ²⁷ 2 gm powder of each and 50 ml of Murchita Ghrita (processed ghee) and cooked on low flame according to preparation of medicated ghee as referred in Ayurvedic literature.

Swarna Bhasma (1.2 gram) and honey (50 ml) are added to this ghrita and triturated on the day of Pushya Nakshatra. The bowl of Swarnamritaprashana is kept in warm water to maintain the consistency. This preparation is administered orally in a dose of 4 drops (containing 2 mg of Swarna Bhasma) to each child.

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Swarnamritaprashana as a Health Initiative: Since 2009 May, Swarnamritaprashana has been administered once in a month at 12 centers for children between 0-16 years. On the day of Pushya Nakshatra, children accompanied by their parents will report at the registration counter. A card is handed over with registration number containing details about name, date of birth, age and address alongwith parent's name and other details. Afterwards they will be reported to the examination hall at different counters to determine the anthropometric measurements like Weight (kg), height (cm), head circumference (cm) and chest circumference (cm) and the same will be entered

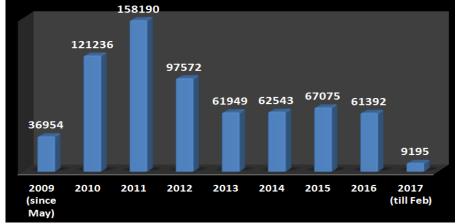
into the card. Any illness and its duration are also documented. On completion, they will be reported to the card collection counter and carries a slip to Swarnamritaprashana drop counter. All the parents are advised not to give any food to child for one hour after administration of Swarnamritaprashana. The same procedure is followed in all the 12 identified centers of Swarnamritaprashana. The study on Swarnamritaprashana was started on 29th May 2009 at the Sri Dharmasthala Manjunatheshwara College of Ayurveda and Hospital, Hassan with 334 children. A maximum of 104 cycles of Swarnamritaprashana has been conducted till 10th February 2017 and is detailed in **Graph 1**.



GRAPH 1: NO. OF CYCLES OF SWARNAMRITAPRASHANA CONDUCTED TILL DATE (10/02/2017)

Overall 6,76,106 doses of Swarnamritaprashana has been administered as part of this public health

initiative till date. The year wise distribution of doses is detailed in **Graph 2**.



GRAPH 2: YEAR WISE DISTRIBUTION OF SWARNAMRITAPRASHANA DOSES TILL DATE (10/02/2017)

DISCUSSION: Swarnamritaprashana is a herbomineral preparation with extracts of herbs in Ghrita media possessing Balya, Rasayana, Medhya and Tridoshahara properties. Swarna Bhasma, the

principal ingredient of Swarnamritaprashana enhances immunity through phagocytosis.²⁸ Swarna Bhasma have been incorporated both in Ayurveda and medical science for rejuvenation and

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immunomodulation in many chronic diseases.²⁹ Conventional gold preparations are credited with rejuvenating and antioxidant properties.³⁰ Brahmi, Shankhapushpi and Vacha are effective in improvement of memory and lack of attention.³¹ Vacha used here possess immunomodulatory activity.³² Yastimadhu also exhibits immunomodulatory property and enhances permeability in drug delivery system.³³ Guduchi is anti-inflammatory and at the same time immunostimulant too.³⁴ Pippali possess shows rejuvenating effect on lungs and increases the bioavailability.³⁵⁻³⁶ The alkaloid piperine contained in Maricha aids in digestive process by enhancing the ability of body to absorb the essential nutrients.

- CONCLUSION: Swarnamritaprashana can be securely administered in infants and children up to 16 years of age for their physical, mental and intellectual wellbeing. Comprehensive controlled clinical trial needs to be taken up with biomarkers to support the immunomodulatory activity of Swarnamritaprashana. Such clinical trials with immunological profile determination can open way for wide use in National Health Program for the benefit of the children. Ultimately, Ayurveda can improve the quality of life through health promotional strategies by developing integrated and multi-sectorial approach for population-based prevention interventions.
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CONFLICT OF INTEREST: Nil.

REFERENCES:

- 1. Pal D, Sahu CK, Haldar A. Bhasma: The ancient Indian nanomedicine. J Adv Pharm Technol Res 2014; 5:4-12.
- Galib, Mayur Barve, Mayur Mashru, Chandrashekhar Jagtap, Patgiri BJ, and Prajapati PK. Therapeutic potentials of metals in ancient India: A review through *Charaka*

- 3. Yadav KD, Chaudhary AK. Percentage of Swarna Bhasma in medicaments of Ayurveda to treat disorders of different origin. Int J Green Pharm 2015; 9:90-4.
- Mehadihassan S. Cinnebar gold as the best alchemical drug of longevity, called Makardhwaja in India. Am. J. Chinese medicine, 1985; 13:93-108.
- Anil Kumar Singh, Arvind Kumar Gupta, Manish, Pramod Kumar Singh. Rasayana therapy: A magic contribution of Ayurveda for healthy long life. Int. J. Res. Ayurveda Pharm. 2014; 5(1):41-47.
- Jyothy K B, Sheshagiri S, Patel KS, Rajagopala S. A critical appraisal on Swarnaprashana in children. Ayu 2014; 35:361-5.
- 7. Willi Paul, Chandra Prakash Sharma. Blood compatibility studies of *Swarna bhasma* (gold *bhasma*), an *Ayurvedic* drug. Int J Ayurveda Res. 2011; 2(1):14-22.
- 8. Shah ZA, Gilani RA, Sharma P, Vohora SB. Attenuation of Stress-Elicited Brain Catecholamines, Serotonin and Plasma Corticosterone Levels by Calcined Gold Preparations Used in Indian System of Medicine. Basic Clin Pharmacol Toxicol. 2005; 96:469–74.
- Mahapatra Arun Kumar, Nisha Kumari Ojha, Abhimanyu Kumar. Rationality of Swarna prashan in pediatric practice. International Journal of Ayurvedic and Herbal Medicine 2013; 3(3):1191-1200.
- Arun Raj GR, Shailaja U, Rao Prasanna N, Preventive Medicine in Children: An Ayurvedic Approach Highlighting Native Vaccinations. International Journal of Innovative Research and Development 2013; 2(6):886-893
- 11. Vasant Patil, Chetali Samant, Umapati Baragi. Suvarnaprashana therapy in children; concepts, practice and prospects. J of Ayurveda and Hol Med (JAHM); 2014; 2(7):1-3.
- Shrinidhi K Acharya. Introduction to Swarnaprashana. International Ayurvedic Medical Journal 2016; 4(10): 3209-3214.
- Rao N Prasanna, Shailaja U, Mallika KJ, Desai S Sheetal, Debnath Parikshit. Traditional use of Swarnamrita prashana as a preventive measure: Evidence based observational study in children. Int. J. Res. In Ayur. Pharm. 2012; 3(5):634-638.
- 14. Jyothy K Bhaskaran, Mukesh Nariya, Kalpana S Patel, Rajagopala S, Hetal B Aghera, Ashok B Krishnaiah. Effect of Swarna Bhasma on Memory and Learning in Swiss Albino Mice. J. Res. Trad. Medicine 2015; 1(1): 23-28.
- Sharma Chakrapany. A review on Swarnaprashanaa gold licking, a child immunity enhancer therapy. Global J Res. Med. Plants & Indigen. Med., 2013; 2(11):752-761.
- Sharma Brahm Dutt, Nagar Jayant. A review article on Swarna prashana samskara w.s.r. immunization. International Journal of Applied Ayurved 2016; 2(8):1024-28.
- 17. Chetan Gulhane, Deepali Gulhane, Danga SK, Ashita Surve, Kalpana Dhuri. Scientific View towards Suvarnaprashana in Alternative Medicines. Int J Ayu Pharm Chem 2015; 3(3):128-137.
- Abhishek, Dixit Shiv Om, Shruthi CS, Sujatha K. Utility of Swarna in Ayurveda - A literary review. International Ayurvedic medical Journal. 2016; 4(11):3421-3426.
- Arun Raj GR, Shailaja U, Prasanna N Rao, Ajayan S. Review on the concept of immunomodulation in Ayurveda with special emphasis on Prakara Yoga. International Journal of Pharmaceutical Sciences and Research 2014; 5(4):1116-1123.

E-ISSN: 0975-8232; P-ISSN: 2320-5148

- Arun Raj GR, Shailaja U, Prasanna N Rao, Parikshit Debnath. Nutraceuticals and Functional foods. 1st ed. Houston-Texas, USA: Recent Progress in Medicinal Plants. Studium Press LLC; Chapter 10, Nutraceuticals and Functional foods in Ayurvedic perspective 2016; 42: 172-199.
- G.R. Arun Raj, U. Shailaja, Parikshit Debnath, Subhadip Banerjee, Prasanna N. Rao. Exploratory studies on the therapeutic effects of Kumarabharana Rasa in the management of chronic tonsillitis among children at a tertiary care hospital of Karnataka. J Tradit Complement Med. 2016; 6(1):29-33.
- Chunmei Li, Myeong-Hyeon Wang. Nardostachys jatamansi (D. Don) DC prevents LPS-induced inflammation in RAW 264.7 macrophages by preventing ROS production and down-regulating inflammatory gene expression. Food Science and Biotechnology. 2014; 23(3): 903-909.
- Viswaroopan D, Arun Raj GR, Shailaja U. Standardization of Ashwagandha Ghrita: A Herbal Ghee Based Ayurvedic Medicinal Preparation. Int J Pharm Sci Res 2016; 7(2):819-23.
- Parul Agarwa, Bhawna Sharma, Amreen Fatima, Sanjay Kumar Jain. An update on Ayurvedic herb *Convolvulus* pluricaulis Choisy. Asian Pacific Journal of Tropical Biomedicine. 2014; 4(3):245-252.
- Shailaja U, Rao Prasanna N, Arun Raj GR, Mallannavar V. Effect of Kumarabharana Rasa on Chronic Tonsillitis in children: A pilot clinical study. Int. J. Res. Ayurveda Pharm. 2013; 4(2):153-157.
- Arun Raj G R, Shailaja U, Rao Prasanna N, Mallanavar V. Review on the therapeutic efficacy of an Ayurvedic compound drug in Chronic Tonsillitis in children. Unique Journal of Pharmaceutical & Biological sciences 2013; 1(2): 2-11.

- Rajagopala S, Ashok BK, Ravishankar B. Immunomodulatory activity of *Vachadhatryadi avaleha* in albino rats. Ayu. 2011; 32(2): 275-278.
- 28. Mitra A, Chakraborty S, Auddy B, Tripathi T, Sen S, Saha AV, *et al.* Evaluation of chemical constituents and free-radical scavenging activity of Swarnabhasma (gold ash): an Ayurvedic drug. J Ethnopharmacol 2002; 80: 147-53.
- Sur TK, Pandit S, Mukherjee R, Debnath PK, Bandopadhya SK, Bhattacharya D. Effect of Sonachandi Chyawanprash and Chyawanprash Plus, two Herbal Formulation on Immunomodulation. Nepal Med Coll J 2004; 6:126-8.
- Shah ZA, Vohora SB. Antioxidant/restorative effects of calcined gold preparations used in Indian systems of medicine against global and focal models of ischaemia. Pharmacol Toxicol. 2002; 90(5):254-9.
- 31. Jigna Samir Shah, Goyal RK. Usage trends for memory and vitality-enhancing medicines: A pharmaco epidemiological study involving pharmacists of the Gujarat region. Int J Ayurveda Res. 2010; 1(3): 138-143.
- Pulok K Mukherjee, Neelesh K Nema, Santanu Bhadra, Mukherjee D, Fernão C Braga, Motlalepula G Matsabisa. Immunomodulatory leads from medicinal plants. Indian Journal of Traditional Knowledge. 2014; 13(2):235-256.
- Saxena S. Glycyrrhiza glabra-Medicine of the millennium. Natural Product Radiance 2005; 4:358-67.
- 34. Saha S, Ghosh S. *Tinospora cordifolia*: One plant, many roles. Ancient Sci Life 2012; 31:151-9.
- 35. Pandey MM, Subha Rastogi, Rawat AKS. Indian Traditional Ayurvedic System of Medicine and Nutritional Supplementation. Evidence-Based Complementary and Alternative Medicine. 2013:1-12.
- 36. Ramar Perumal Samy, Peter Natesan Pushparaj, Ponnampalam Gopalakrishnakone. A compilation of Bioactive Compounds from Ayurveda. Bioinformation. 2008; 3(3):100-110.

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