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CONCEPT OF IMMUNITY AND IMMUNIZATION IN CHILDREN; AN AYURVEDA REVIEW

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ABSTRACT

Children health is prime focus of any nation since they are considered as hope of future. The Indian modern as well as traditional system of medicine, both paid huge attention towards the health restoration of children. In this regards Ayurveda emphasized concept of Vyadhikshamatva (immunity) which help in the prevention of common Bala Roga mainly arises from infectious origin. Vyadhikshamatva not only prevent children from diseases but also contributed towards the growth & development of children. There are many ways in modern science to boost immunity described under the heading of immunization and Ayurveda also provides some classical approaches such as; Suvarna Prashana and Rasayana therapy which help to retain or strengthen inherent immunity. These Ayurveda approaches not only provide good immunity but also boost physical strength, improve intellect and increases appetite, etc. The immunization not explored up to great extent in Ayurveda therefore present article summarizes Ayurveda view on immunity and concept of immunization.

KEYWORDS: Ayurveda, Bala Roga, Vyadhikshamatva, Immunization.

INTRODUCTION

Ayurveda science not only deals with the health of adult or elderly person but this science also associated with antenatal, postnatal care and focuses towards the healthy upbringing of children. *Balyavastha* is considered as crucial period life since mental and physical development take places at this stage. This stage described as *Vivardhamana Dhatu Awastha* since it is the period of growth and development. The immune system also starts developing from *Balyavastha* therefore it is essential to use technique of immunization in *Balyavastha*. Ayurveda emphasizes that we should try to prevent diseases prevalence so there is no need to focus on their treatment approach and immune system can play major role to achieve this goal of Ayurveda philosophers.^[1-4]

Innate immunity is natural immunity present at the time of birth, with the time immune system develops gradually but due to the developing stage children are more prone to diseases occurrence than adult therefore it is essential to take specific care during childhood age. The inherent immunity or artificial process of immunization can help in this regards therefore it is required to be aware about the process of immunization.^[3-5]

Ayurveda & Vyadhikshamatwa

Vyadhikshamatwa means immunity determined by the *Kapha* in children, immunity also depend on the process of digestion & metabolism. The metabolic and digestive process associated with *Agni* and *Jatharagni*, it is believed that good state of *Agni* and *Jatharagni* helps in the formation of nutrients which contributed towards the quality of *Dhatus, Mamsa, Rakta, Rasa, Shukra* and *Majja*, etc. The good quality of these all biological elements resembles balanced state of *Vyadhikshamatwa*. This type of immunity helps to balances *Tridoshas* constitution, provides immunity & strength thus resist disease pathogenesis.

Oja and Bala another terminology associated with disease resistance, Oja is considered as initial defense mechanism of body resides in *Hridaya* and circulated throughout. It balances *Dhatus* and *Doshas* thus maintain normal health status. *Bala* is considered strength of body which provides ability to heal naturally. The various types of *Bala* depicted in **Figure 1**. It provides physical as well as mental strength and contributed towards the healthy status of children. Therefore it can be stated that good state of *Oja* and *Bala* required restoring normal health.^[4-6]



Figure 1: Various types of Bala.

Ways to improve Immunity/ Immunization

Ayurveda described associated factors of disease in children such as; *Sharir, Nij, Kalaj, Sankramaka, Vishaj* and *Pragya apradha*, etc. Ayurveda mentioned that immunization and utilization of prophylaxis principles such as; *Nidan parivarjan, Virrudha ahar, Ritucharya, Dincharya, Shodhan kriya* and *Rasyana* therapy, etc. can help to remain away from diseases.

Ayurveda essentially described of concept Suvarnprashana which considered can be as immunization technique of Ayurveda. The procedure of Suvarnprashana involves rubbing of metallic Gold on clean stone with water and it is mixed with herbs (Medhya Rasayana), Ghrita and honey then administered to the newborn through oral route. Suvarnprashana improves intellect, metabolism, digestion, physical strength, immunity and enhances complexion, etc. Prevents common infections, improves attention, learning ability, reduces psychosomatic problems and promotes overall development of body. As per Acharya Kashyapa licking of gold can increases Agni, Bala and Medha. It is advised that Suvarnprashana should be done for new born in Pushya Nakshatra to acquire all benefits of classical vaccine.

Similarly Ayurveda also mentioned concept of *Panchagavya prashan* which possess ritual fundamental, can be practiced during July and August. It utilizes attenuation of microbes through cow urine and other materials, copper vessel used in technique served for isolation attenuation.^[7,8]

Other Ayurveda Approaches of Immunization

- Ghee with Musta & Vidanga can be advised for child age one month.
- Vyosha & Sariva Siddha Ghrita can be advised for child age three month.
- Musali Kandaja Raja & Vyosha powder along with honey can be advised for child age six month.

After one year

Dhātri & Musta in sugar along with warm water for children 1.3 years of age.

- Dhātri & Musta with Jeeraka and Pippali powder along with honey for children 1.6 years of age.
- Dhātri & Musta with Vidanga & Pippali along with honey for children 1.9 years of age.
- Dhātri & Musta with sugar & Jeeraka along with cow milk for children 02 years of age.

After two year (from 3rd year of age)

- Vidanga, Vacha, Ela, Shunthi, Pippali & Musta for children 3.3 years of age.
- Punarnava, Vacha, Tvacha & Bhūnimba for children 3.6 years of age.
- Brahmi, Vacha, Kutaja, Musta & Pippalī for children 3.9 years of age.
- Musta, Vidanga, Chitraka, Ajagandha, Trikatu, Vacha & Abhaya for children 04 years of age.

After completion of four year of age from 5^{th} year same drug can be used as mentioned above, however it is advised to substitute *Vacha* with *Pushkaramula*.

Rasayana therapy is also plays role in immunomodulation, Rasayana act on Agni to stimulate digestive system thus enhance quality of Poshaka Rasa and improves nutrient supply. Rasayana acts on Sortas to stimulates absorption of nutrients and improves overall circulatory process of body. However uses of Rasayanas for immunomodulation purpose in children needs great care to be adopted. Here consideration of age, Roga, Kala and Prakruti is prerequisite to avoid any adverse effects. Rasayana therapy helps in stimulates Oja and Bala thereby boost immunity. Rasayanas such as; Yashtimadhu, Brahmi, Pippali, Guduchi, Amalkii, Tulsi and Ashwagandha, etc. possess immunomodulatory activity thus stimulates Vyadhibalavirodhitvam and Vyadhi-utpadaka pratibandhaka.

Role of Ayurveda Immunization

The most of the drugs mentioned above helps to acquire *Vyadhikshamatva* through their *Dipana*, *Pachana & Medhya* effects; moreover immunobooster properties of these drugs alter immune response in disease conditions. Formulation named as *Lehana* especially advised for *Ksheerapa*, *Ksheerannada* and *Annada-awastha*. *Lehana* utilizes ayurveda drugs in semisolid consistency along

with honey to strengthen physical as well as mental health. Ayurveda approaches enhance growth and development process, helps in nutritional absorption and resist disease pathogenesis.^[9,10]

CONCLUSION

Ayurveda give importance to the *Bala roga* and it is believed that children are very susceptible towards the diseases due to the low state of immunity. Ayurveda advised specific *Ahara*, herbs and *Rasayanas* to stimulate immune system in growing age. Moreover *Garbhini Ahara* during *Garbhawastha* also play vital role towards the quality of immune system of the baby. Therefore mother should take care of herself during pregnancy and after pregnancy. Immunity of new born can be enhanced by various means of immunization as mentioned in modern therapy and Ayurveda also described concepts of *Lehana, Swarnaprashana* and *Rasayanas* to stimulate *Vyadhikshamatwa*.

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