

# SAMSKARAS - ANATOMICAL AND APPLIED ASPECT

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**ABSTRACT:** During the span of growth and development, an individual pass through the different phases of sensory, motor, neuromuscular, psychological and social developments. These various types of developments are termed as developmental milestones. These developments should occur at particular period otherwise called as delayed developmental milestones. Ayurveda describes different Samskaras in different period to mark attainment of these milestones that ensure proper growth and development. The number of Samskaras varies; it is about 20-40. Samskaras are considered as an important cultural event of an individual's life right from the time of conception up to death possessing both socio-cultural as well as medical significance. These are the turning points of life of an individual and need to be celebrated. These rituals may enable physician to assess the growth and development of a child and diagnosis of disease while performing these Samskaras.

**Index Terms:** Samskaras, growth, developments, milestones, socio-culture

## INTRODUCTION:

There are more than 40 Samskars mentioned in religious texts. The Samskara are a series of sacraments that serve as rites of passage, which is a ritual event that marks a person's progress from one status to another and mark the various stages of the human life and to signify entry to a Ashrama. The medical significance of these Samskars are now understood by modern world also. Samskaras represent several milestones of a child periodically representing the growth and development. Each Samskara makes the growing child to acquire a new talent with the disappearance of earlier immature skill which is called as Gunantardhana. Specific Samskara is to be performed at specific time or age of a child, which gives clear idea of growth and development that has happened in a child.

In Hindu culture it is believed that every aspect of life is sacred, so due to this reason each important stage, from conception to Anteyeshthi (death cremation) is distinguished as special rituals.

In Ayurveda, the word Samskara introduced as "Samskarao Hi Gunaantradhyanum" means qualitative improvement is carried out by incorporating the specific qualities (in various Dravyas or medicines as Rasaushadhi)<sup>1</sup> The word Samskar is derived from root word 'Kri' with 'Sam' Upsarga, which is being used for several meanings for example in sense of education, cultivation, and training, rite or ceremony to change the qualities or intrinsic worth. A general definition of Samskara, encompassing nearly all of the above is "to improve upon something while removing its undesirable attributes." Samskara or Sacraments give meaning to the teachings of the Vedas and Hindu religion. We need various Samskara from time to time for religious/spiritual motivation during this passage of life. Samskara are rites that are meant to purify and positively influence our lives throughout our growth and development, from conception until death. Samskara are religious rites which help directs our lives towards Dharma (righteous living). They help and guide us to higher levels of morality and spirituality.

## NEONATAL SAMSKARA

### Jatkarma Samskara:

ceremony performed after birth or Birth rituals. As per Acharya Charka, on first day of birth, the child should be given first feeding of honey and Ghrita consecrated (or blessed) with mantra as given for this purpose. Thereafter, firstly milk from the right breast should be offered (or given) to the child<sup>2</sup>. A water filled pitcher and consecrated with mantras should be kept near the head of baby, probably to maintain proper humidity in Kumaragara.

Acharya Sushruta says that on first day after performing Nalachhedan, the child should be sprinkled with cold water and then honey and Ghrita mixed with Ananta powder in small quantity and sanctified with Mantras should be given three times to baby. On second and third day Ghrita medicated with lakshmana, on fourth day honey and Ghrita in the amount which fills the palm of neonate (Savapanitalsamita) given two times as well as offer breastmilk to baby<sup>3</sup>.

### Importance of Jatakarma samskara:

**Anatomical consideration;** Rooting and sucking reflex as well as sucking-swallowing coordination is assessed while offering honey and Ghrita.

**Oral reflexes** rooting reflex, sucking & swallowing, gag reflex.

**Rooting reflex**-onset 28 wks. of intrauterine life, well established 32 to 34 wks. of intrauterine life and disappear 3-4 month after birth. Elicited by the rooting or search is present in normal full term babies. When the baby cheek contacts the mother's Brest or the other parts, he "roots" for milk.

**Sucking Reflexes:** onset 28 wks. of intrauterine life, well established 32 to 34 wks. of intrauterine life and disappear 12month after birth. Elicited by the introducing a finger or teat into the mouth, when vigorous sucking will occur.

**Swallowing Reflex.** Onset begins around 12-13 wks. of intrauterine life. Full swallowing established at 32-36 wks. of intrauterine life. Their absence in a full-term baby would suggest a development defect.

**Suctorial pad** – the roundness and fullness of the infant’s cheeks are due to the presence in the cheek of a large pad of fat known as the suctorial pad. This lies anterior to the masseter, on the buccinator. It is pierced by the parotid duct and is represented in adult by the buccal pad of fat which is relatively much smaller. It is of assistance in the act of sucking. The new-born child, though edentulous, does not present the unsightly appearance of the toothless adult because the suctorial pad prevents infalling of the cheeks.

The *Jatakarma Samskara* also prove an as an efficient tool of examination to rule out oral anomalies such as cleft palate, natal teeth, fissured tongue, ankyloglossia, tracheo-esophageal fistula etc.

**Applied aspect: Benefit of breast-feeding:** Breast feeding at the earliest just after delivery by healthy baby proves beneficial to him and mother. Benefits of breast-feeding include its nutritional values as right amount of Fatty acid, lactose, water and amino acids for human digestion, brain development and growth.

**Honey** acts as source of energy because it contains mainly fructose<sup>4</sup> (about 38.5%) and glucose (about 31.0%) as well as vitamins and multimineral<sup>5</sup>.

Honey has antimicrobial properties & antibacterial activity against coagulase-negative staphylococci.

**Ghrita** has lubricating property. So, results in lubrication of the G.I. tract mucosa. Ghrita contains fat soluble vitamins such as A, D and E. It contains saturated fatty acids but of short chain fatty acid.

#### **Namakarana Samskara (Naming Ceremony):**

A sacrament for imposing of divinity in newly-born human child. Based on the arrangement of the constellations at birth, the child is named on a day fixed by caste tradition. The *Namkaran Samskara* (Naming Ceremony) of the child is normally performed on the tenth or twelfth day after birth.

#### **Applied aspect of Namakarana Samskara:**

- A person name is foremost and defining aspect of his identity.
- During this ceremony, education is given to parents and other family members that the child should be given the atmosphere where his/her inherent qualities can be awakened.
- Name of a baby promotes the healthy psychology, good physical and mental development.
- Starting of late neonatal period.
- Disappearance of physiological jaundice<sup>6</sup>. Persistence of jaundice after tenth day in neonate should be considered serious.
- Baby regains the birth weight.
- Umbilical cord falls normally after 5 to 10 days

*Acharya Charaka* has described *Ayupariksha* after naming ceremony, which decides the healthy and diseased condition of the baby<sup>7</sup>.

#### **Niskramana Samskara (First outing ceremony):**

This *Samskara* is performed when the child is taken out of the home for the first time. According to *Acharya Kashyapa*, in fourth month, baby who had been given bath, adorned, wearing new clean clothes, possessing mustard, honey and *Ghrita* or *Gorochana*, he along with *Dhatri* (wet nurse) should be taken out of the house and ready to enter the temple. Thereafter worshiping the *Agni* (burning fire) with *Ghrita* and *Akshata* and then after venerating the *Brahmana*, God *Vishnu*, *Skanda*, *Matrikas* and other family gods with *Gandh* (fragrances), *Pushpa* (flowers), *Dhupa* (fumigations), *Mala*(garlands) etc. gifts and eatable substances and so many other methods; thereafter reciting the *Brahmanas* and taking their blessings and saluting the *Guru*, should re-enter own house; having entered, the physician should recite the *Mantra* (hymen) for offering prayer<sup>8</sup>.

#### **Applied aspect of Nishkramana Samskara:**

- During bath of baby, it is also a good time for a physician to check any deformity by as well as clearing any stress or anxiety of parents related to baby.
- During this ceremony following development changes appear in infant: At fourth month, infant is able to reach out for objects with both hands (Bidextrous reach), able to rolls over the bed, recognizes the mother and responds to her voice, anticipates the feed, laugh loudly when talked by someone, responds to sound well, starts cooing, curious and shows interest in surrounding environment, Able to fix eyes on external objects and adaptation to external environment begins<sup>9</sup>.
- Disappearance of grasping reflex (3-4 months), placing reflex (3-4 month), stepping reflex (3-4 months), rooting reflex (3-4 months), tonic neck (2-6 month), Moro’s reflex (3-4month)  
But persistence of these reflexes indicative of cerebral palsy.
- At fourth month of age, infants are described as “hatching” socially, becoming interested in a wider world<sup>10</sup>.

#### **Karnavedhan Samskara:**

As per *Acharya Sushruta*, the child’s ears are pierced for *Raksha-Nimit* (protection from diseases) and *Bhushan-Nimit* (ornamentation)<sup>11</sup>. According to *Acharya Kashyap*, the experienced and expert physician (*Vaidya*) should pierce the ear of child, for achievement of religion (*Dharma*), desires (*Kama*) and wealth (*Artha*)<sup>12</sup>. By *Acharya Sushruta* and *Acharya Kashyapa*, this procedure must be performed by expert (*Kushal*) surgeon (*Bhishag*), not by inexpert (*Agyani*) *Vaidya* which leads to various complications like fever, *Manyastambha*, *Hanutambha*, *Karnasula* etc.

#### **Applied aspect**

- According to the classic *karnavedhan* has dual benefits of protection and ornamentation. Ear lobules is rich in blood circulation. Presence of gold in this area will generate positive energy in the child
- Ear lobules, according to acupressure and acupuncture principles, are cardio-pulmonary areas. Childhood period is more susceptible for these disorders. *Karnavedhan* and weaning of gold in that place would probably prevent this.

- It seems that this procedure may stimulate the strengthening of immune system in response to injury to the ear lobules which initiate antigen-antibody reaction in early life period.
- Gold is one of the best *Gara Vishahar Dravyas*. Probably weaning gold in vital part with rich nerve and blood supply reduces the effect of toxins within the body.
- *Karnavedhan Samskar* might help in early detection of bleeding and clotting disorders.

### Annaprashana & phalaprashan Samskara (First feeding of solid food):

In 6th month- *Phalaprashan* is advised by *Acharya Kashyapa* whereas *Annaprashan* is suggested by *Acharya Sushruta* and *Acharya Vagbhata*. In the 10th month, *Annaprashan Samskar* is indicated by *Acharya Kashyapa*.

1. According to *Acharya Sushruta*, the child at the age of six months, should be given food light and *Hitkar* (appropriate wholesome food)<sup>13</sup>.
2. *Acharya Vagbhata* advised that solid food should be offered to the child gradually simultaneously with discontinuing breast-milk.
3. *Acharya Kashyapa* has described *Annaprashana Samskara* in detail. Here, they advised feeding of various fruits in the sixth month. After eruption of teeth or in tenth month, the feeding of cereals (*Annaprashan*) should be done during auspicious day in *Prajapatya* constellation, after worshipping the gods and *Brahmanes* by cereals with meat and donations. Later *Acharya Kashyapa* also give some yoga for nourishment of growing child<sup>14</sup> as: -
  - a. Prepare a *Avleha* by combination of old, husk free and well washed sati or *Sashti* rice, mixed with oleaginous substances and salt. The powders of wheat and barley also should be given, according to congeniality.
  - b. *Ushna leha* (electuary) cooked with *Vidanga, lavan*, oleaginous substances are beneficial, to the one having diarrhoea.
  - c. To the one having predominance of *Pitta, Mrdvika* with honey and *Ghrta* should be given, and in predominance of *Vata*, diet with juice of *Matulunga* and salt.
  - d. The one knowing *Desh* (place of living), *Agni* (digestive power), strength and period, whenever observes the child as hungry, should give him the food according to congeniality with the gap of one or two periods.

### Applied aspect of Annaprashana:

1. Fruit juices should be given to the child from sixth month which are source of vitamins especially vitamin C.
2. First meal offered to infant would be easily digestible, light and soft as advised by *Acharya Kashyapa*.
3. At age of 6-month, breast milk now not enough to fulfil the requirement of growing child. So, it is the accurate time for introduction of supplementary feeding as *Phalaprashan*.
4. Breast milk is deficient in iron, vitamin A, D, K and calcium<sup>15</sup>, so by offering *Phalaprashan* and *Annaprashan* ceremony at this time with breast milk, we can reduce the deficiency of related essential vitamins.
5. We can examine the six-month infant which has following milestone: Starts sitting with own support (Sits in tripod fashion), Unidextrous reach, recognizes strangers or develops stranger anxiety, pronounce monosyllables (pa, ba, da etc.), lift the head and chest off the surface with weight bearing on hands, may roll from prone to supine, able to bear most of the weight on legs when holding the child in standing position. Similarly, tenth month corresponding milestones may also examine e.g. bisyllables, standing with support, sitting without support, waves bye-bye etc.
6. Primary teeth also start erupted e.g. Central incisors (5-7 month), Lateral incisors (7-11month, First molars (10-16 month)<sup>16</sup>.
7. Like *Phal/Annaprashan* introduction in *Ayurveda*, same principle followed in modern paediatrics as after six month of age weaning, which is the process of gradually introducing an infant to adult diet and withdrawing the supply of its mother's milk, offer foods which are soft, easily digestible and avoid foods with high allergenic potential.
8. IMNCI recommendation for breastfeeding and complementary feeding for 6-12 months are given as:  
Breastfeed as often as the child wants. Give at least one *katori* at a time of: Mashed roti, rice/bread/biscuit mixed in sweetened undiluted milk or Mashed roti/rice/bread mixed in thick dal with ghee/oil or khichadi with added oil/ghee. Add cooked vegetables Or Dalia/halwa/kheer prepared in milk or any cereal porridge cooked in milk or Mashed boiled/ fried potatoes. Offer Banana/biscuit/papaya/cheeko/mango as snacks in between the serving.

### Chudakaram (or Mundan) Samskara:

This *Samskara* involves shaving the head (of a son). There is a chapter named “*Chudakarniye*” in *Kashyapa Samhita*<sup>17</sup>. This *Samskara* involves first shaving of the child's hair. According to *Acharya Sushruta*, the cutting of hairs, nail gives lightness, prosperity, courage and happiness.

**Anatomical aspect:** the tympanic antrum is a well- developed cavity at birth. The mastoid process does not begin to develop until the end of second year, the same age at which the mastoid air cells begins to develop. Before the mastoid process develops, the facial nerve is a subcutaneous structure and is in danger of being cut by an incision behind the ear which extends too far down. In the adult the nerve is 2.5-3.8 cm from the surface, being pushed to the base of the skull by the development of the mastoid process. There is, in the infant, a strip of cartilage uniting the squamous and petrous parts of the temporal bone. This cartilaginous strip is very thin and lies under the dura and temporal lobe of the brain. Infection of the middle ear spreads through this cartilage to cause an extradural or temporal lobe abscess.<sup>18</sup>

### Importance of Chudakaram Samskara:

1. *Acharya Charaka* described general examination of infant in detail. During examination of skull or cranium, skull without defect, well formed, slightly larger than usual, yet not disproportionate to the body and resembling an open umbrella is deemed favourable.
2. At one-year age *Balaawastha* changes to *Annada Awastha* and according to *Acharya Sushruta ksherrpa* changes to *ksheerannada* at one year, at three-year age starts *Annada* stage.
3. Diagnosis of *Phakka Roga* (1 year) made as by *Acharya Kashyapa*<sup>19</sup>.
4. After shaving of head, the size and shape of the head should be documented carefully for normal or abnormal findings.
5. A tower-head, or oxycephalic skull, suggests premature closure of sutures and is associated with various forms of inherited craniosynostosis.

6. Marked venous distension may be observed during inspection of the scalp for any vein prominence because of increased ICP and thrombosis of the superior sagittal sinus. During scalp examination, inspect any cutaneous abnormalities such as cutis aplasia or abnormal hair whorls as they may suggest an underlying genetic disorder<sup>20</sup>.
7. Various neurodevelopmental abnormalities may be revealed by gross evaluation of anthropomorphic aspects of the face.
8. Palpation of scalp carefully may also reveal cranial defects or craniotabes, a peculiar softening of the parietal bone so that gentle pressure produces a sensation like indenting a Ping-Pong ball.
9. Auscultation of the skull is an important adjunct to a neurologic examination.
10. The anterior fontanel (AF) is the largest fontanel and is placed at the junction of the sagittal suture, coronal suture and frontal suture. The anterior fontanelle is not completely closed until about the middle of the second year (between 12 to 18 months of age). Examination of anterior fontanel is useful clinically as excessively large AF and its delayed closure is present in many conditions: Malnutrition, Hydrocephalus, Cretinism, Down syndrome, Trisomy's 13 and 18, rickets, pituitary dwarf etc. Bulging anterior fontanel is sign of raised intracranial pressure exclude crying infants, hydrocephalus, vitamin A poisoning, Urea cycle enzyme defects, Vitamin D dependent rickets etc.
11. The skull may be unduly small as in microcephaly or generalised craniostenosis, Trisomies 13 and 21, Lissencephaly, cerebral dysgenesis etc. or large in hydrocephalous, hydrocephaly, cerebral gigantism, porencephaly, and intracranial tumours etc<sup>21</sup>.
12. At one-year infant following milestones developed such as walk without support, mature pincer grasp developed, starts turning pages of book and scribble, playing simple ball game, first molar eruption occurs (16-20 month).

### Upanayana Samskara: (Threading Ceremony):

A detailed procedure is to be followed by the disciple (*Shishya*) on the instructions of his teachers (*Guru*) while starting the study of *Ayurveda* as in *Charaka*<sup>22</sup>. This *Samskara* correlate with pre-school age (3-6 years). Amongst all the *Samskara*, the *Upanayana Samaskara* is of foremost value. The child enters studentship and a life of perfect discipline which involves *Brahmacharya* (celibacy).

### Vedarambha (Beginning Vedic study) Samskara:

According to *Acharya Sushruta*<sup>23</sup> as the child acquires capacity, strength to learn and education should be started. This *Samskara* correlates with school age (6-12 years age). In this *Samskara*, each student, according to his lineage, masters his own branch of the *Vedas*.

### CONCLUSION:

1. Every *Samskara* as mentioned in our *Samhitas* are indirectly or directly related to the developmental milestones of the new born. They are inflecting the turning points in the growth and development of an infant which also checks the process and time of proper growth that should take place at the right time and in the right manner.
2. The traditional ceremonies explained in *Samhitas* in the form of *Samskaras* have scientific basis and logic which can also be proved by the present day evidenced based contemporary sciences.
3. These traditional *Samskaras* which are on the verge of extinction from the Indian culture should be preserved, propagated and inculcated in the present scenario to enhance the clinical side of *Ayurvedic* classics along with the enrichment of *Vedic* culture.
4. These rituals or customs also provide a rational guideline toward the care of the new born during celebrating different ceremonies from very conception to childhood.

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