

Review on Navjata Shishu Paricharya (neonatal care) in Ayurveda

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Abstract

Navjata shishu paricharya is the care of normally delivered new born at birth including prevention of hypothermia, asphyxia, stimulation of senses and initiation of breast feeding. Ayurveda classical texts include the methods and practices followed for newborn care in ancient times. The ancient practices include use of available natural resources. Navjata shishu paricharya starts from vaginal delivery to viable stability of new born. The reported incidence of perinatal asphyxia varies from 2 to 16.2 % in community- based studies. Navjata shishu paricharya is thoroughly explained with the various procedures proponent for early and specified management of new born in ayurvedic samhitas like Charak Samhita, Shushrut Samhita, Ashtang hridayam etc.

Keywords

Navjata shishu paricharya, Hypothermia, Asphyxia, Newborn care

Introduction

Neonatal care is described in detail in Kaumarbhritya. The

Knowledge of Ayurvedic medicine was passed orally generation to generation. Great importance was given to women's health, care of pregnant women and care of the new born at birth and in subsequent months. These are some immediate measures to be taken soon after the child is born. These measures are called Jaata Karma or Jaatamaatra Paricharya in Ayurveda. In general, the care of a normally delivered newborn at birth includes prevention of asphyxia, hypothermia, early rooming in and initiation of breast feeding. Various procedures were advised in the management of newborn child by acharyas with a few differences in sequences of these procedures. Different Acharyas advised various procedures for the stability of new born with a few difference in option regarding the sequence of those procedures.

Acharya Charaka	Acharya Shushruta	Acharya Vagbhata
1.Prana-Pratyagamana	Mukha-Vishodhana	Ulba-Parimarjana
2.Snana	Pichu-Dharana	Prana-Pratyagamana
3.Mukha-Vishodhana	Nala-Chedana	Nala-Chedana
4.Garbhodaka-Vamana	Jatakarma	Snana
5.Nala-Chedana	Snana	Pichu-Dharana
6.Jatakarma		Swarna-Prashana
7.Raksha Karma		Garbhodaka-Vamana
		Jatakarma

Materials & methods

- Data and information collected from references available in different journals, articles, papers and websites, research papers, dissertations and thesis from different institutes.
- Reference and text books on pediatrics and neonatology, Ayurveda Samhitas and related texts, other electronic media sources.

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1. PRANA-PRATYAGAMANA (neonatal resuscitation):

Acharya Charaka opines that immediately after birth of baby, while taking steps to bring out placenta, the following measures should be taken for the resuscitation of the fetus: striking of stones near the base of ears of baby, sprinkling cold water in summer and hot water in winter on the face of baby. By these measures, baby will regain consciousness. If baby does not stabilize, waving a krishankapalika shoopa (a blackened surface broken earthen pot) near it until the baby is fully revived.¹ Astanga Hridaya stated this process after Ulvapariamarjana. Acharya Vagbhata gave the sign & symptoms of an asphyxiated newborn. Acharya Vagbhata stated that for proper revival (resuscitation) of newborn, first the child should be Parisheka with Bala oil along with striking of two stones near the base of the ears of the newborn. If these steps do not regain the stability of the child, then provide oxygen to the child by krishankapalika shupa and chanting of Mantras in the right ear of newborn.²

Clinical importance:

From the above measures, it is clear that acharyas were aware of birth asphyxia and other related complications of the birth process at that point in time for which they have advocated means to guard against. It seems that sensory, tactile and auditory stimulation are produced by measures as - striking of two stones, sprinkling water over face and krishankapalika shupa which may by reflex stimulate cardiorespiratory systems and thus improving the respiratory & heart rate respectively. Rubbing of Bala taila on baby's body serves the purpose of tactile stimulation, temperature maintenance and providing strength to baby. Enchanting of Mantrasa close to baby's ear may serve as a psychological support to mother and an auditory stimulus to baby.

2. SNANA:

According to Acharya Charaka, when respiration is established in the neonate and he is in a stable condition, his oropharynx passage should be cleaned with water then he should be given bath³. Acharya Sushruta prescribes bathing of neonate after Jata karma. He says that baby should be bathed with decoction of laticiferous trees, water of aromatic drugs or water heated with silver or gold or warm decoction of kapittha leaves in accordance with season, dosha and means⁴ Acharya Vagbhata describes snana, the first bathing of the newborn in detail and advised snana to be done only after proper evaluation of the doshas, kala (seasons) and strength/capability of baby. Acharya Vagbhata also mentions different dravyas for snana as lukewarm ksheerivriksha kwatha, sarvagandha dravyas' medicated water, water in which heated rajat (silver) or swarna (gold) have been quenched or in kapith patra kwatha.⁵

Clinical importance:

Various formulations and drugs used for the first bathing of newborn have experimentally showed various properties as anti-nociceptive and anti inflammatory activity, antioxidant activity,

and analgesic activity which surely are of benefit to a newborn baby. Bathing of baby maintains hygiene and medicated bathing water promotes healing of umbilical stump and have pacifying properties.

3. MUKHVISHODHAN

(Cleaning of oral cavity):

Acharya Charaka described much vishodhana very scientifically, which is also synonymous with the modern day Neonatology practice, where it is advocated that the oral Cavity (palate, lips, pharynx, tongue) of the newborn is first of all to be cleaned with nail trimmed finger wrapped with cotton⁶ and similar description is given by Vagbhata.⁷ In this context, Acharya Shushruta has promoted the use of ghrita and saindhava (rock salt) clear the secretions of the oral cavity.⁸

Clinical importance:

The proper order for cleaning an infant's oral cavity is first cleaning the mouth, then the oropharynx and hypopharynx and finally the nasal cavity, using a suction catheter with gentle intermittent suction. This technique involves first cleaning the oro-pharyngeal cavity and thereafter the nasal cavity to avoid aspiration of secretions into the respiratory tract when baby starts breathing. Thus, this measure rules out risk of aspiration pneumonia (Ulvaka). Placing a ghee soaked cotton piece on anterior fontanel prevents heat loss from the large surface area of neonate's head and also protects it from injury.

4. PICHUDHARANA(Tampon application):

Acharya Sushruta recommend that put/cover the murdha of the newborn (anterior fontanelle or forehead) with tampon soaked in ghrita.⁹ Acharya Vagbhata has also counselled the use of sneha-pichhu (a gauze smeared with oil) on talupradesha (anterior fontanelle or forehead).¹⁰

Clinical importance:

This might have been employed to indicate importance which murdha/brhama randra (anterior fontanelle) holds with regard to the soft intracranial structures of the newborn, which are yet not protected due to unfused cranial sutures. Thus, as a protective mechanism, acharyas have advised the

covering of anterior fontanelle with a Sneha-pichhu.

5. GARBHODAKA VAMANA (Stomach wash):

Acharya Charaka advised use of saindhava and ghrita for inducing vama (emesis) to wash out the gastric contents right after carrying out the pichhudharana.¹¹ For enabling this process, Acharya Vagbhata has even advised use of specific drug i.e. vacha (*Acorus calamus*).¹²

Clinical importance:

Garbhodaka Vamana prevents chances of regurgitation and aspiration of regurgitated contents. Emesis is not a favoured method in neonatology for the fear of aspiration and proves dangerous in cases of preterm, floppy or unstable babies. Hence, as a routine stomach wash is not advised in normal newborns but is advised in some special conditions like in babies born through a Caesarean section, severely asphyxiated babies, meconium stained amniotic fluid, polyhydramnios, infants of diabetic mothers, hypoplastic small for dates babies etc.

6. NALA CHEDANA (Cutting & care of Umbilical Cord):

According to Acharya Charaka Umbilical cord should be cut at eight angula distance from baby's umbilicus by clean and sharp instruments made from metals like swarna (gold), rajat (silver), ayasa (iron) and followed by tying with a clean thread at its cut end. The free end of the clamped cord should be hung onto the neck of the baby. During initial stage of nabhipaka (omphalitis), oil medicated by drugs as lodhra (*Symplocos racemosa*), mulethi (*Glycyrrhiza glabra*), Priyangu (*Callicarpa macrophylla*), devdaru (*Cedrus deodara*) & haridra (*Curcuma longa*) is curative in case of omphalitis develops.¹³ Sushruta has also mentioned nala-chedana in navajata shishu-paricharya.¹⁴ Acharya Vagbhata mentions similar technique of nala-chedana but regarding the procedure he is of the view that the umbilical cord must be cut at a distance of four angulas from umbilicus and to prevent it from paka (inflammation) kushtha (*Saussurea lappa*) medicated oil must be used.¹⁵

Clinical importance:

Acharyas advised cutting of umbilical cord after completion of resuscitative measures and stabilization of baby because it provides nutrition and blood supply to the baby. It is advised to clamp the cord by thread to prevent bleeding which may cause hypovolemic shock. Umbilical cord should be hung on to the neck after cutting of the cord to prevent bleeding and also to prevent cord infections by urine and stool etc. lodhra, madhuka, priyangu, suradaru, haridra. Kushtha have jantughana, vedana sthapana and shotha hara (anti-inflammatory) properties. So these drugs are used for prevention from infections.

7. JATAKARMA:

Regarding the feeding schedule of the newborn, Acharya Charaka has said that on the first day feed the neonate with madhu (honey) and ghrita which has been sanctified with mantras and

thereafter the mother should offer her right breast for feeding to the baby after placing by the side of baby's head, an earthen pot filled with water rendered sacred by chanting of mantras.¹⁶ In perspective, Charaka has advised breast feeding immediately after birth right from the first day of life which in principle is advocated nowadays as well. Acharya Sushruta advised a concoction of madhu, ghrita and ananta consecrated with mantras to be administered three times a day on the first day of childbirth. On second and third day Lakshmana medicated ghrita, while on fourth day madhu and ghrita is to be offered to the newborn in amount which is swapanitalasamitta (or amount which fills the neonate palm). Henceforth, the baby can be exclusively breast-fed.¹⁷ Acharya Vagbhata follows Sushruta's feeding regimen with a slight variation where on the fourth day, he has advocated offering ghrita (sarpi)¹⁸ and navnita (butter) to the newborn¹⁹ and thereafter initiating breast feeding.

Clinical importance:

Jatakarma is the birth rite which helps the baby transcend to extrauterine life. Honey and ghee act as nutrition for the baby because they have a high caloric value, giving energy and nutrition to baby. Gold powder gives protection and enhances brain development of the baby.

First feed initiates movements and activates the gut and gastrointestinal tract. During Jatakarma we can assess the rooting and sucking reflex of neonates. Jatakarma with mantra is a psychological support to mother. Charaka has advised breast feeding start as soon as possible after birth right from the first day of life for protective immunoglobulin present in colostrums as well as for nutrition.

8. RAKSHAKARMA (Protective measure):

1. Under Rakshakarma, Acharya Charaka gives detailed description related to protection of newborn related to antiseptic measures of beddings, clothing, and aseptic measures to prevent infections from surroundings. All around the labour room (sutikagara) the twigs of adani, khadira, karakandu, pilu, parushaka should be hung, and sarshapa, atasi, tandula, kanikanika should be scattered on its floor. A

packet containing vacha, kustha, kshomka, hingu, sarspa, atasi, lasuna, guggulu etc. rakshoghana dravyas should be hung on the door and similar dravyas should be tied around the neck of mother and the child. Well wishing care taker women should be remain vigilant and attentive in the sutikagara for the initial 10-12 days.²⁰

2. Acharya Sushruta directed the newborn to be wrapped in kshauma (linen) cloth and made to sleep on a bed covered with soft linen. Twigs of pilu-badar-nimba-parushaka are to be used to gently fan the baby. A tampon impregnated with oil (tailapichu) should be applied over the baby's forehead daily. Fumigation with rakshoghana dravyas should be done in the sutikagara.²¹
3. Acharya Vagbhata described similar rakshakarama as described by Charaka. In addition, Vagbhata has also counselled use of herbs brahmi, indryana, jivaka and rishbhaka to be tied around hands or neck of the newborn. Vagbhata also mentions use of balvacha for it promotes medha, smriti, health and longevity of the baby.²²

Clinical importance:

From the above description, it is evident that with respect to rakshakarma, Ayurvedic acharyas have advocated measures which aim to protect the newborn baby from various infections as in use of clean clothes, beddings etc. The fumigation of the sutikagara (sanatorium/labour room) by various drugs is mentioned to protect the baby from opportunistic infections/diseases. The various drugs mentioned in dhupana karma have antiseptic and antimicrobial properties which have been proved so experimentally in various studies in recent times. Present neonatal care includes special aseptic measures to be adopted aiming to prevent any infection of the newborn. Right from the initiation of birth process measures for

anti - sepsis such as clean hands, clean surface, use of sterile surgical instruments (blade/scissor), clean handling of the cord, use of surgical mask, gloves etc. are to be religiously followed until handling and resuscitation of the newborn baby.

Conclusion

Various maestros of Ayurveda have described the care of newborn according to their system but there is some kind of difference in the sequence and explanation. In order to apply the traditional and authentic neonatal care technique great care is warranted. In this article neonatal care at the time of birth has been explained according to different Acharyas. The techniques which are explained by different Acharya are proven to be relevant in today's scenario as well. If these traditional and authentic procedures are followed in present state, then it may prove to be a boon in neonatology. The detail navajata shishu paricharya is surely the precursor of recent neonatology both having the common aim of protecting the newborn and adapting it to the worldly environment. Though with the advent of newer scientific knowledge and technologies, this practice has become obsolete these days. But yet an understanding of Navjata Shishu Paricharya proves it to be the foundation stone and base of neonatal care to enrich present day practices.

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