



COMPARATIVE STUDY OF AYURVEDIC AND MORDEN APPROACH OF NEONATAL CARE

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ABSTRACT

Kaumarbhritya, a branch of *Ashtang Ayurveda*, focuses on the care and management of infants and children. The concept of *Navajata Shishu Paricharya* (Care of the Newborn) is extensively described in both *Ayurvedic* and modern texts and this article presents a critical study of the procedures involved in *Navajata Shishu Paricharya*, highlighting their scientific relevance and utility in providing adequate care to newborns. The study draws from classical *Ayurvedic texts*, paediatric textbooks, magazines, and research journals. Timeless Wisdom in Newborn Care measures described in ancient *Ayurvedic* texts demonstrate remarkable wisdom in newborn care, including resuscitation techniques, prevention of hypothermia, prevention of aspiration and infections, Promotion of rooming-in and early initiation of breastfeeding. These timeless principles continue to guide modern newborn care practices, underscoring the significance of *Ayurvedic* wisdom in promoting optimal health outcomes.

KEY WORDS - *Navajata Shishu Paricharya* , *Prana Pratyagamana* , *Kaumarbhritya* , New born care.

INTRODUCTION

According to ancient Hindu mythology, Lord *Brahma* created *Ayurveda*, a branch of *Atharvaveda*, comprising 1,000 chapters and 1 lakh *shlokas* (verses). *Ayurveda* is divided into eight branches, one of which is *Kaumarbhritya*, a term derived from the words "*kaumar*" (child) and "*bhritya*" (care). This branch focuses on the care of children, their diseases, and respective treatments. *Ayurvedic* acharyas like *Charak*, *Sushruta*, and *Vagbhatta* have placed *Kaumarbhritya* in different orders within the eight branches of *Ayurveda*. The subject matter of *Kaumarbhritya* is mainly discussed in the *Sharir Sthana* and *Uttar Tantra* sections of the *Brihat Trayi* treatise. *Kaumarbhritya* covers neonatology, including the intensive care of newborns (*Navajata Shishu Paricharya*). Neonatal examination is essential to identify any anomalies or delivery-related injuries that may have been missed earlier and to educate mothers on newborn care at home. Traditional *Ayurvedic texts*, such as *Charaka Samhita*, *Sushruta Samhita*, and *Astanga Hridaya*, describe extensive neonatal care practices called *Navajata Shishu Paricharya*. These techniques involve neonatal resuscitation (*Prana Pratyagamana*), vernix caseosa cleaning (*Ulva Parimarjana*), oral cavity cleaning (*Mukh Vishodhan*) and birth ceremonies (*Jata karma*). The present paper analysed these *Ayurvedic* techniques, their medical importance and relevance to the current neonatal care system with information sourced from classical *Ayurvedic* texts, paediatric textbooks, magazines and research journals.

Ayurvedic scriptures provide extensive information on how to care for newborns from birth until they are fully stable, and different *Acharyas* have presented different procedures and sequences to ensure the stabilization of newborns.

MATERIAL AND METHOD

This study compiled information from *Ayurvedic* texts, magazines, and research articles to explore the various procedures recommended by *Acharyas* for stabilizing newborns, highlighting the slight variations in their approaches.

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 foetus: 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 shoop*a (a blackened surface broken earthen pot) near it until the baby is fully revived¹. *Astanga Hridaya* stated this process after *Ulvaparimarjana*. *Acharya Vagbhata* gave the *sign* & symptoms of an asphyxiated newborn. *Acharya Vagbhata* said, 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 newborn². 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 the newborn.

Clinical Importance

Acharya Charaka lays emphasis on the initiation of measures of *Prana Pratyagamana* immediately following birth along with efforts for extraction of placenta without losing an iota of time. This sensory, tactile, and auditory stimulus is produced by striking two stones, sprinkling water all over the face. Strike of two stones close to mastoid or base of ear causes intense sound due to which the vestibule causes stimulation to cochlear nerve. It is a sensory nerve whose afferent branch carries sensation to its nuclei located on the floor of the fourth ventricle near the respiratory center, which is also stimulated and respiration starts. Sprinkling of hot or cold water may stimulate the sensory fibers of the facial nerve, which may stimulate the respiratory centre in the brain. Rubbing of *Bala taila* on baby's body serves the purpose of tactile stimulation, maintenance of temperature and strengthening the baby. Enchanting of *Mantras* close to the ear of baby may act as a psychological support to the mother and an auditory stimulus to the 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. *Sushruta* prescribes bathing of neonate after *Jata karma*. He states that the baby should be bathed with decoction of *laticiferous* trees, water of aromatic drugs or water heated with silver or gold or warm decoction of *kapitha* leaves in accordance with season, *dosha*⁴ and *Acharya Vagbhata* advised *snana* to be done on the basis of the *doshas*, *kala* and *Bala* of baby. *Vagbhata* has also mentioned other *dravyas* such as lukewarm, *ksheerivriksha kwatha*, *sarvagandha dravyas*, medicated water, water in which heated *rajat* or *swarna* have been quenched or in *kapith patra kwatha* for *Snana*⁵.

Clinical Importance

Bathing of baby maintains hygiene and Medicated bathing water promotes healing of the umbilical stump and has pacifying properties. Most of the drugs that are prescribed by the *Acharyas* have antimicrobial, anti-inflammatory and analgesic activity⁶.

3. *Mukhvisodhan* (Cleaning of Oral Cavity)

Neonate *Taalu*, *Ostha*, *Jivaha*, *Kantha* should be wiped with properly clipped off, well cleaned and covered with cotton swabs attendant's finger then *Shiras Talu* of baby should be covered with unctuous substances cotton swab⁷. Similar description is given by *Vagbhata*⁸. Use of ghee and rock salt for oral cleaning prescribed by *Acharya Sushruta*. Covering fontanel by ghee soaked cotton has been advocated by both *Sushruta*⁹ and *Vagbhata*.

Clinical Importance

This technique involves first cleaning of oropharyngeal cavity and thereafter the nasal cavity to avoid aspiration of secretion into respiratory tract when the baby starts breathing. So, this measure rules out the risk of aspiration pneumonia (*Ulvaka*). A ghee-soaked cotton piece placed at anterior fontanel prevents a large surface area of newborn's head from heat loss; it also protects the head area from injury.

4. *Pichu Dharan* (Tampon application)

Acharya Sushruta also recommended after *Mukhavishodhan* to apply tampon soaked in *Ghrita* on *Murdha*¹⁰. Smear the *Talupradesh* with *Sneha Pichhu* recommend by *Acharya Vagbhata*¹¹.

Clinical Importance

Murdha/Brhamarandra which are also known as anterior fontanelle, are soft intracranial structures of the new born, and are exposed at the time of birth due to unfused cranial sutures. covering of anterior fontanelle with a *Sneha-Pichhu* is advised by *Acharyas* as a protective mechanism.

5. *Garbhodaka Vamana* (Stomach Wash)

According to Ayurvedic texts, *Garbhodaka Vamana* is a therapeutic procedure involving a gentle emetic to cleanse the newborn's stomach. This practice is believed to prevent potential complications like regurgitation, aspiration and post-feeding vomiting, which can arise due to the presence of meconium, blood or amniotic fluid in the infant's stomach. *Acharya Charaka* Advocates the use of a mixture of rock salt (*Saindhava*) and ghee (*Ghrita*) to induce emesis¹² and cleanse the stomach and *Acharya Vagbhata* Recommends a similar approach but with the addition of a specific herb like *Vacha* to enhance the cleansing and digestive properties of the formulation¹³.

Clinical Significance:

- Prevents Regurgitation and Aspiration: By removing excess fluids and irritants from the stomach, *Garbhodaka Vamana* reduces the risk of regurgitation and subsequent aspiration into the lungs.
- Alleviates Post-Feeding Vomiting: The cleansing action helps to prevent vomiting that may occur due to the irritant effects of meconium, blood or amniotic fluid.

6. *Nala Chedan*

Ancient Ayurvedic texts offer detailed instructions on umbilical cord care, emphasizing cleanliness and protection. The timing of cord cutting varies among different *Ayurvedic* authorities, but the general technique involves cutting the cord with a sterilized tool at a specific distance from the navel, tying it to prevent bleeding and hanging the clamped end around the baby's neck to avoid infection¹⁴. To further protect the cord, a special oil infused with antibacterial herbs is applied, and a powder of these herbs is sprinkled on the cord¹⁵. These *Ayurvedic* practices align with modern principles of hygiene and infection prevention, highlighting the importance of proper umbilical cord care for a healthy newborn¹⁶.

Clinical importance

The *Ayurvedic* recognized the importance of proper umbilical cord care for a newborn's health. They advised cutting the cord only after the baby was stable and had completed initial resuscitation measures. This delay allowed for the transfer of essential nutrients and blood from the placenta to the baby.

The cord was then clamped with a thread to prevent excessive bleeding, which could lead to shock. Hanging the clamped cord around the baby's neck served a dual purpose: it prevented further blood loss and minimized the risk of infection from urine or stool.

To protect the umbilical wound from infection, *Ayurvedic* practitioners recommended applying a medicated oil containing herbs like *Lodhra*, *Madhuka*, *Priyangu*, *Suradaru*, and *Haridra*. These herbs possess antimicrobial and anti-inflammatory properties, helping to prevent infection and promote healing. Additionally, a powder of these herbs could be sprinkled over the wound for added protection¹⁷.

These ancient *Ayurvedic* practices align with modern medical principles, emphasizing the importance of aseptic technique, prompt cord clamping and prevention of infection to ensure a healthy start for the new born.

7. *Jatakarma*

Jatakarma, a sacred birth ritual in *Ayurveda*, is performed to welcome the newborn into the world and ensure their well-being. According to ancient texts, the newborn is initially fed a mixture of honey and ghee, believed to provide nourishment and protection. Breastfeeding is initiated soon after, preferably from the mother's right breast¹⁸. *Mantras* are chanted to invoke divine blessings and a water-filled pot,

blessed with *Mantras*, is placed near the baby's head to symbolize purity and vitality. While the core principles remain consistent, different *Ayurvedic* authorities like *Charaka*, *Sushruta*¹⁹ and *Vagbhata*²⁰ have their own variations in the specific rituals and timings of these practices.

Clinical importance

Jatakarma, a sacred birth ritual in *Ayurveda*, offers several clinical benefits for the newborn. The initial feeding of honey and ghee, rich in calories, provides essential energy and nutrients. While modern medicine may have different perspectives on the use of honey for newborns, the *Ayurvedic* practice highlights the importance of early nutrition.

The ritual also facilitates the assessment of the baby's reflexes, such as rooting and sucking, which are crucial for breastfeeding and overall development. The *Mantra* chanting during *Jatakarma* provides psychological support to the mother, promoting a sense of peace and well-being.

Charaka's emphasis on early breastfeeding aligns with modern medical recommendations. Colostrum, the first milk produced by the mother is rich in antibodies and essential nutrients, providing vital protection to the newborn.

8. *Rakshoghna*

Ayurvedic practices for newborn protection, known as *Rakshakarma*, aimed to create a safe and healthy environment for the baby. Here's a breakdown of the key measures:

- **Herbal Protection:** Twigs of specific plants like *Adani*, *Khadira* and *Pilu* were hung around the birthing room (*Sutikagara*), while mustard seeds, flax seeds and rice were scattered on the floor. Additionally, packets containing herbs like *Vacha* and *Guggulu*, believed to ward off evil, were hung on the door and tied around the mother and baby's neck²¹.
- **Continuous Fire and Vigilance:** A fire lit with *Tinduka* wood was kept burning inside the *Sutikagara*, believed to purify the air. Female attendants would stay awake for ten to twelve days, providing constant care for the mother and baby.
- **Positive Environment:** The house was filled with positive energy through celebrations and the presence of loving family members. *Brahmins* well-versed in *Vedic* scriptures would chant prayers twice a day to invoke blessings upon the mother and child.
- **Soothing Care:** *Sushruta* emphasized swaddling the baby in a soft muslin cloth and placing them on a comfortable bed. Gentle fanning with specific plant twigs and daily application of an oil-soaked tampon (*Tailapichu*) on the forehead were believed to promote the baby's well-being²². *Vagbhata* further suggests tying herbs like *Brahmi* and *Jivaka* around the baby's hands or neck for additional protection²³.

While the specific methods of *Rakshakarma* may not be directly translatable to modern practices, the underlying principles of creating a clean, protected and nurturing environment for the newborn remain relevant.

Clinical practice

Rakshakarma, a set of protective measures in *Ayurveda*, aimed to safeguard the newborn from infections. This involved maintaining a clean environment by using clean clothes and bedding. The practice of fumigation with specific herbs, known as *dhupana*, was crucial in disinfecting the birthing room and protecting the baby from various infections. These herbs with their antiseptic and antimicrobial properties, created a protective barrier against harmful microorganisms. By following these practices, *Ayurvedic* physicians aimed to ensure the health and well-being of the newborn.

CONCLUSION

The ancient *Ayurvedic* texts offer a comprehensive understanding of neonatal care, outlining essential practices for the newborn's well-being. From breastfeeding and protection to specific rituals like *Jatakarma*, these texts provide a foundational framework for infant care. While modern medical practices have evolved, the wisdom of these ancient texts continues to inspire and inform contemporary approaches to neonatal care. By understanding the historical context and the principles embedded in these practices, we can appreciate the enduring legacy of *Ayurveda* in shaping the future of infant health.

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