

**RELEVANCE OF INFANT CARE UNIT W.S.R. TO KUMARAGARA: A
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Corresponding Author*Yogita Shrivastava**Professor, Dept. of
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Kumaragar deals with neonatal care, infant feeding, diet for newborn, daily and seasonal regime and also deals with diseases & disorders relating to children including nutrition of children, immunization etc. Ancient concepts of Sutikagriha (the puerperial room) and Kumaragara (the infant care room) are described in Ayurvedic classics specially in Kashyapasamhita to provide a healthy atmosphere to the mother and infant. There are many principles adopted from ancient science to establish holistic child health care for the society and to promote all aspects of nursing, healthy upbringing of new borns, infants, children. This will be very useful for guiding future integrative medicine. This

review article places the importance of concept Kumaragara in Ayurvedic view.

KEYWORDS: Kumaragar, newborn, Kridanak, Kumaradhar, SNCU, NICU.**INTRODUCTION**

Ayurveda one of the oldest medical systems has a strong scientific base achieved after experiments and observations of many years. Out of the eight branches of Ayurveda Kaumarbhritya is the most important branch because it deals with the care of the child before birth till the adolescence. It takes a holistic approach to nursing and healthy parenting of newborns, babies, and children, focusing on all elements of nursing and good upbringing for healthier offspring and society. Specially, Acharya Kashyapa is the one who has highlighted the importance of Kaumarbhritya more than the others. In Sushruta Samhita and Astangahridaya Kumaragara is not described as separate subject. They described it within Sutikagar for maintain hygienic and healthy environment for wellbeing of newborn in

Rakshakaramavidhan. Ancient concept of Sutikagriha (the puerperal room) and Kumaragara (the infant care room) is described in Ayurvedic classics specially in Kashyapasamhita to provide a healthy atmosphere to the mother and infant. In Ancient classics Acharyas have described characteristics of Kumaragara (infant care room) in detail with kumaradhara (guardian) and kridanaka (toys). The people who stay in close vicinity with the child everyday and his surroundings impact child's development to a great extent.^[1] This aspect is closely described under Kumaradhara. Toys, too play a very important role in the life of young children. They motivate venture play, the development of cognitive abilities and social interaction. A playful environment is a pre-requisite for overall growth and development of a child. This results in development and strengthening of neural pathways in the brain. Nature based activities provoke a great feat of imagination skills and thought process is encouraged.^[2]

Concept of Construction of Kumaragara in Ancient Period

It should be spacious, pleasant, with sufficient light, unexposed to the wind, with one portion well ventilated, well-built. Kumaragara should have good ventilation and lighting but direct entry of fast air or bright sunlight with baby is not recommended. Kumaragara is advised to be protected from stray dogs, insects, rats and other harmful animals. Kumaragara should be fumigated with Mustard seeds, Assafetida (Ferula foetida), Guggulu (Commiferamukul), Vacha (Acarus calamus), Tila (Sesamum indicum), Asoka (Saraca asoca)^[3] and sloughs of snakes. These should be applied to the washed clothes). The smoke of this way we are using modified techniques like fumigation with Formalin solution. It is similar like we are using modified technique as Radiant warmers, Air conditioners to provide thermo neutral environment to newborn. The beds, coverlets and sheets for the use of the child should be soft, light and clean and of agreeable smell. Beds, coverlets and sheets when befouled with sweat and dirt and insects and urine, stools, should be taken out. Bedsheets should be adequately washed and fumigated and cleaned and dried and give to the child house for use.^[4,5] As per Acharya Sushruta clothes and blankets should be made of Silk material.^[4] Gems should also be worn by the child. Also little portion should be cut off from the ends of the right horns of living rhinoceroses, Rurus (kind of deer), Gavayas and bovine bulls. Mantras also (written on scraps of paper or bark of Bhurjja), should be worn.^[6] There should be different space for washing area like bathroom and toilets. A separate compartment for drinking water, kitchen etc must be there. The bedding arrangement should be changed as per the season. Kumaragara should be fumigated with Rakshoghna (antimicrobial) drugs. Only

the skilled Vaidya (doctor), Paricharaka (attendants) and guardians should be allowed to enter as they are aware of the precautions to take while handling the baby.^[7] Strangers if allowed to enter may become a cause of exposure to infections, hence they should be avoided.

Kumaradhara in modern context may be a Guardian or a baby sitter. According to Ashtanga Samgraha, an Ayurveda text, a person who is loyal, good in conduct, non-stout, non-greedy and capable of understanding child's mind should be assigned the charge of Kumaradhara.^[8,9]

Kridabhumi (Play ground) Play ground should be plain /even; it should be clean and devoid of iron weapons, spikes, thorns, needle, stones, pebbles, dust, Valuka (sand) etc. Child should feel comfortable on play ground floor. The floor should be sprinkled with the Nimba (Azadiracta indica Linn.) Patra siddha jala (decoction) or Vidanga (Embeliaribes), Maricha (Piper nigrum) etc. Siddha jala (water).^[10,11]

Ayurvedic classics explained the characteristics of toys nicely. Acharya Charaka mentions a variety of toys. Toys should be colorful and should draw attention of the child. They must be lighter in weight, no corner should be pointed and the size of toy should be such that the child will not be able to swallow it. The parts of toys if separable should also be of bigger size so that child won't be able to put it in mouth. Toys should be harmless and non-injurious, not produce insecurity and not life threatening and should not make the child fearful.^[12] These ancient concepts are applicable today also. Ashtanga Samgrahakar specially says that toys should be prepared from Laksha (Laccifera lacca), should create some sound, must be multi-color, attractive, neither small sized nor too big and should please the child. Toys should not be sharp or pointed. They should not frighten the child. Toys should be shaped like animals, such as horse, cow or flowers, fruits of bright colours, other similar things.^[13] According to Ayurveda classics, above mentioned techniques are useful for safety of newborn from Grahabadha and Jiva-Jantu. (Bacterial infection) In very similar way in modern science, we use disinfectants for protection of newborn from microorganisms, and Nasopharyngeal infections.^[15]

DISCUSSION

Ayurveda, a holistic medical system of Indian subcontinent is complete science within itself, However unfortunately lacked regular updation of concepts. It is the foremost systematically planned and organized medical pathy accepting different specialized branches including Kaumarabhritya or Pediatrics. The four factors Kumaragara, Kumaradhara, Kridabhumi, Kridanaka are still relevant. The do's and don'ts are feasible today also. Now a days also many fundamental concepts have been accepted and applied in modified form. Playing part

confers the children with important developmental welfare. But this is possible only with a wise choice of toys and plays. When children get sufficient space to play, the prolonged play can be encouraged. Also, the broad spectrum availability of toys and other playful objects help in accelerating the thought process of children. If one wishes to create an environment for the optimal development of children, play needs to be mandatorily included apart from academic and social-enrichment opportunities and a safe environment should be made available to all children. In the current competitive circumstances, parents are not able to devote enough time to their own child even if they wish. As a result, they are opting for leaving the baby with a full-day baby sitter or dropping the baby to a day care centre (Palanaghar / Anganvadi). Designing a center like an ancient description is not possible but some changes can be adapted. The person who is assigned to look after the child in parental absence must possess all good qualities. Ayurveda described this aspect of Kumaradhara (baby sitter) in a very judicious way. In today's life, also the reliance on baby sitter is a cause of concern. The concept and logic behind Kridanaka and its practical implementation in child's life described by Ayurveda really seems to be true. In a very similar way, we are using modified techniques for the same purpose in today's NICU that are mentioned above like proper light sources, ventilation, hygiene maintenance.

National Neonatology Forum of India has its own Guidelines for setting up of Special Care Neonatal Unit.^[16] The concept of setting up of Special Care Neonatal Unit (SCNU) is similar to setting up of Kumaragara. There are distinct directions for facilities to be provided at SCNU. These include the parameters- for required space, location in a health care facility, designing aeration, light source, room temperature and humidity, characteristics, electrical outlets, etc. for example a space of 100 sq. ft for each infant has been assigned. The neonatal unit should be located close to labour room and obstetric operation theatre to facilitate transfer of needy infants. Likewise, facility of elevator to transport extra-mural babies should also be there.^[17] SCNU should be constructed in either a square space or rectangular design. In such a unit, split unit on either side of corridor should not be there so as to avoid spread of infections. Factors like constant surveillance and minimal walking for duty staff are to be kept in mind during the setup. In the Nursery, there should be separate areas for baby care and mother. Special examination space, handwashing area & changing room, place for preparation of IV fluids, nurses' table, rooms for staff should be there. Rooms for holding clean utility and soiled utility are some more requisites for nursery. There has to be special areas and rooms for intramural babies, step-down nursery, extra-mural babies. Infected infants

need to get isolated in a room away from SCNU.^[18,19] Floors and walls of mother's area, nurses table and charting areas should be equipped with washable glazed surface and windows should be of double layers of panes for heat and sound insulation. Examination area has to be a small room equipped with examination table, appropriate seating arrangement, enough light & warmth. Baby should be assessed well before admission to nursery. At the entrance sufficient space for handwash and changing room must be there. To prevent outer air entry self-closing doors should be placed in the SCNU.^[20] Outer footwear are to be replaced by nursery slippers. Till now elbow operated hand washing sink with liquid soap dispenser were provided. But the pandemic COVID-19 has urged the need to install automatic liquid soap dispenser. Sink should be made of easily washable material. Disposable napkins or hot air dryer are good choice to avoid touch. The distance of Handwashing stations with sinks should not be more than 20 feet from every newborn bed. Appropriate use of disinfectant solutions, hand dryer machine is recommended.^[21] IV fluid preparation area should be well maintained by categorizing parenteral nutritional formulations, IV fluids, enteral feeds and medicines. Boiling and autoclaving facilities are a must near to this area. Meeting room for doctors, administrator, consultants should also be separate. The position of Nurses station should be central to ease observation of all babies. Clean utility and soiled utility rooms with negative air pressure are mandatory. A separate arrangement for transitional care of high-risk newborns by mothers before discharge from IPD should also be made. Child craft activities to educate mothers and exclusive breast feeding, accurate weighing, etc. should be promoted. Adequate air ventilation of nursery is necessary to limit spread of nosocomial infection with reverse exhaust fan.^[22]

CONCLUSION

Ayurveda has described multiple aspects of child caring in detail. Kumaragara (Pediatric care unit) is one of them. Kumaragara can be compared to modern Paediatric care unit which involves elaborate and expensive facilities and a dedicated team of administrators, doctors, nurses and technologists. We are using Today's NICU (Neonatal Intensive Care Unit) for treatment of ill newborns and prevention of healthy preterm babies from diseases. Kumaragara was used in a broader context which also targeted exclusive care of normal child apart from an ill child in ancient period. Thus there are a lot of principles that can be adopted from Ayurveda for guiding future integrative medicine.

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