

AYURVEDIC REVIEW OF UMBILICAL CORD CARE**Dr. Jayashri Gowardhan Tayade*¹ and Dr. Dattatraya Bhaurao Chavan²**

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ABSTRACT

Umbilical cord care is described by both Ayurvedic and Modern text in details. In ancient *Ayurvedic* texts, *acharya* have given prime importance to care of newborn. The care of umbilical stump after cutting the umbilical cord forms an integral part of the management of every newborn baby. Charaka, Sushruta, Vagbhata *Acharayas* have described the care of umbilical cord in their own measure as with a few differences in sequences of these procedures. Similarly the modern science also describes care of umbilical cord in the discipline of neonatology along with prevention of infections, both having common aims to protecting newborn and avoids sepsis.

KEYWORDS: Umbilical cord, infection, neonatology.

INTRODUCTION

Neonatal mortality and morbidity due to neonatal sepsis is a global burning health issue. A newborn is prone to get infections due to multiple causes, so proper newborn care plays an important role to avoid these and helps to reduce the neonatal mortality rates, because it has been observed the most of neonatal death occurs due to sepsis.^[1]

According to modern science, the umbilical cord forms by the fifth week of fetal development, replacing the yolk sac as the source of nutrient for the fetus. Thereafter, until the birth, umbilical cord serves as the lifeline to the fetus, as it supplies all the nutrition to fetus. The function of umbilical cord ceases with the birth of baby, so it is very important to take care of umbilical stump.

Umbilical cord usually dries & separates within 6-8 days. The necrotic tissue of the umbilical cord is an excellent medium for bacterial growth. If proper aseptic conditions are not maintained, it may result in local sepsis or septicaemia.^[2]

Thus to avoid these complications it is advised to take appropriate care of umbilical cord till it separates. Care of umbilical cord is one of the important care at birth and also prevention of bacterial infection.^[3]

CARE OF THE UMBILICAL STUMP

□ INSTRUMENTS

The sterile instruments must be used to cut and clamp the cord for prevention of occurrence of Tetanus Neonatorum.

Now days the umbilical cord is clamped without delay after delivery. The first ligature is tied about 2-3 cm from, the abdomen of the baby & second ligature is tied 5 cm from the abdomen. The cord is cut by use of new sterilized razor blade in between these two ligatures. Bleeding may occur after 2-4 hours of birth due to shrinkage of cord & loosening of ligature. So cord must be inspected after birth. Ligation of cord with a rubber band or disposable clip protects against these hazards.^[4]

□ LOCAL APPLICATION

Triple dye, ethyl alcohol betadine or chlorhexidine should be applied at the tip & around the base of the umbilical stump daily to prevent colonization. To reduce colonization with staphylococcus aureus & other pathogenic bacteria, the umbilical cord may be treated daily with bactericidal or antimicrobial agents such as a triple dye. Alternatively, chlorhexidine washing or on rare occasion during s. aureus epidemics, a single hexachlorophene both may be used.^[5]

□ PRECAUTIONS

The dressing should not be applied. To keep the stump bacteria free by using poly bactericidal powder containing neomycin, bacitracin and polymyxin. The delayed falling of the cord is also a useful marker of immunodeficiency state.^[5] The cord takes longer time for falls, if it is dry & shrivelled or when infected.

According to Acharya Charaka

“Tataha kalpanam nadyaha\atstasya kalpanavidhimupadeshamah Nabhibandhanat prabhutyastangulmbhidnyanam, kruvtva Chednavkashasya Dvayorantrayoha shanergruhitva tikshnena rauukmarajtaysanam chednanamnyatmenardhdharen chedeyet tamagre sutrenopanibdya kanthesya shithilamvasrujat Tasya chetrabhihi pachyet, tam ladhramadhukpriyanguсударuharidrakalkasidhen tailenabhanyat eshamev tailoshadhanam churnenavchurnayet/Eti nadikalpanavidhiruktaha samyak||” Cha. Sha 8/44.

Acharya Charaka described “nala chedana” to be undertaken after “Pranapratyagaman”. After fixing the point at “8” figures from umbilical attachment the cutting point should be held tightly on both sides and cut with a sharp half-edged instrument made of gold, silver or steel. The end of attached portion should be tight with a thread & attached loosely to the neck of fetus. If the cut portion suppurates it should be massaged with the oil prepared with paste of Lodhra (*Symplocos recemosa*), Madhuka (*Glycyrrhiza globra*), Priyangu (*Callicarpa macrophylla*) Devdaru (*Cedrus deodara*) & Haridra (*Curcuma longa*) the powder of the above drug may also be applied over the parts.^[6]

LOCAL APPLICATION

Madhuk, Lodhra and Priyangu Raktastambhak (Haemostatics) *kaphaghana* being *kashaya rasa* (astringent) it stops bleeding due to *kashya rasa* by contracting capillaries.^[7]

Devdaru: It eliminates secretions from infections due to the *tikta* (bitter), *ushana* & *laghu gunas*. It also eliminates foetid smell by acting as antiseptic.^[7]

Haridra: Vranapachana Shodhana(purification) & *Ropana* (wound healing). Its paste should be applied as it is *Shothahara* (anti inflammatory) & *Vedenasthapan* (anodynes).^[7]

According to Acharya Sushruta

“-----Tato Nabhinadimstangulmayamyam sutren badhva chedayet, Tatsutrekdesham ch kumarasya grivayam samyag badhniyat”|| 14 || Su.Sha. 10/14

After the child is born, the “*nabhi nadi*” (umbilical cord) should be pulled to the length of eight *angula* (16 cm) tied with a thread and cut one end, should be tied round the neck of child, loosely (to prevent pain, hindrance & exudation).^[8]

According to Acharaya Vaghabhatta

“Pratyagat pranasya ch prakrutibhutasya babhinalam nabhibandhnachatu ran gulam syordhya shomsutren badhva tikshnen shastren vardhyet\ Grevayam chainmasajayet nabhich kushtatailen sichyet “|| A.S.U. 1/15.

After the child has regained his life (breathing well) & became normal, his umbilical cord should be tied with thread of flax (hemp) about “4 Angulas” above the umbilicus then with the sharp knife the cord should be cut (must above the knot) & hung around the neck. The stump of cord should be anointed with oil processed with “Kustha” (Sassurea lappa).^[9]

LOCAL APPLICATION

Kushtha: Vednasthapana (anodynes) & Shothahara (wound healing). It eliminates foetid smell being *teekshana* & *sughandhi*. Hence used for fumigation from infection being *Jantughana* (antimicrobial). It also eliminates vitiated discharges by its *ushna* & *teekshana* gunas.^[7]

DISCUSSION

Various *Acharayas* of Ayurveda had described procedure of care of umbilical cord in their own way. *Acharya* Charaka described the procedure along with also mentioned the application of ayurvedic drugs. *Acharya* Sushruta & *Acharya* Vaghabhatta mentioned procedures of care of umbilical cord. *Acharya* Vaghabhatta described use of *Kushta Taila* for prevention of *paka*.

Modern sciences also described care of umbilical cord in detail along with precautions and local applications to avoid sepsis.

CONCLUSIONS

Umbilical cord care is a key factor in the newborn care to reduce the mortality & morbidity globally. The detail care of umbilical cord is surely the precursor of recent neonatology. *Ayurved* & modern sciences, both having the common aim of protecting the newborn & adapting it to worldly environment.

In order to reduced neonatal infections & sepsis, essential & basic care of the umbilical cord should be available at all health care levels because they are not expensive.

The provision of essential newborn care is the most important factor in the health priority of our country.

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