

Rakshakarma in Child Health Care- A Review

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Abstract

Rakshakarma means protective measures. It is one of the important procedures extensively used in Ayurveda. It is one of the procedures involved in the resuscitation of the newborn. The concept of *Rakshakarma* in Ayurveda is quite efficient for providing a complete physical and psychological protective shield to the newborn. Protective measures for the new born baby are taken to prevent the infections and to clean the environment, as well as to increase humoral immunity. The fumigation (*dhupana*) of the *Sutikagara*(sanatorium/labour room) by various drugs is mentioned to protect the baby from various opportunistic infections. Ayurvedic *acharyas* have advocated the use of clean and fumigated clothes, beddings etc. The various drugs mentioned in *dhupana* karma have antiseptic and antimicrobial properties which have been also proved experimentally in various studies. Plants protect by secreting natural phenols, flavonoids, isoflavones, glucosinolates, etc. These different chemicals are usually bitter, pungent or astringent in taste. In addition to their bactericidal or biological activity these substances may provide a defense against predators. Chanting hymns and practicing *Yama* and *Niyama* provide a psychological support to the patient, which is helpful for quick recovery and rehabilitation. Thus we can say that *Rakshakarma* procedure provides a complete physical and psychological protection to the mother and the child.

Keywords

Rakshakarma, Immunity, Protective Measures, Antisepsis, Vrana



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INTRODUCTION

Raksha and its various derivatives occur predominantly in the Vedic texts means – to protect, guard, take care of, govern, to keep, to preserve, save, to avoid, to observe or to beware of, an evil spirit, a demon¹.

Rakshakarma means protective measures. It is one of the important procedures extensively used and talked about in Ayurveda on different subjects. Charaka and Vagbhata spoke about *Rakshakarma* especially during child care. *Rakshakarma* is one of the procedures involved in the resuscitation of the newborn. Acharya Sushruta explained in detail about *Rakshakarma* in the management of wound and also patient going through surgery in pre-operative, operative and post operative phase. *Rakshakarma* is one of the sixty *Upkrama* (procedures) involved in the management of *Vrana* (wound) in Sushruta Samhita. Dhupana, Mantra, Yama, and Niyama are the procedures performed for the *Rakshakarma* as described by Sushruta. Again during the chapters related with pregnancy there is a description about *Rakshakarma* for mother and baby care.

It was thus found, that the concept of *Rakshakarma* in Ayurveda is quite efficient for providing a complete physical and psychological protective shield to the

patient. Protective measures for the new born baby are taken to prevent the infections and to clean the environment, as well as to increase humoral immunity.

Under *Rakshakarma*, Acharya Charaka gives detailed description related to protection of newborn (*rakshakaram*) related to antisepsis of clothing, beddings, and aseptic measures to prevent infections from surroundings. All around the *Sutikagara* (the place where mother and child both resides after delivery), the twigs of *Adani*, *Khadira*, *Karakandu*, *Pilu*, *Parushakas* should be hung, and *Sarshapa* (yellow mustard), *Atasi*, *Tandulakan-kanika* (rice particles) should be scattered on its floor. “*Tandul Bali Home*” should be done twice a day i.e, morning and evening. The *musal* (pestle) should be placed obliquely at the entry door. The fire should always lit by putting the dry wood of *kana-kantak* (*ingudi*) and *Tinduka* wood in the *Sutikagara*. A packet containing *Vacha*, *Kustha*, *Kshomka*, *Hingu*, *Sarspa*, *Atasi*, *Lasuna*, *Guggulu* etc. *raksoghana* dravyas should be hung on the door and similar dravyas should be tied around the neck of mother and the child. Well wishing skilled care taker women should be remain vigilant and attentive continuously in the *sutikagara* for the initial 10-12 days i.e, the baby should not be kept alone. The

Sutikagara should be fulfilled with gifts, auspicious recitations, blessings, praises, playing of music and musical instruments, foods and drinks, along with devoted, loyal and delighted persons. The person having the knowledge of *Atharvaveda* should perform 'Shanti-Patha or Home' in the morning and evening for the welfare of the mother and baby².

Acharya Sushruta directed the neonate 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 cotton tampon impregnated with oil (*tailapichu*) should be applied over the baby's head daily. Fumigation with *Rakshoghana* dravyas should be done in the *Sutikagara*. These *Rakshoghana* drugs should be tied over the hands, feet, head and neck. Tila, Atsi, Sarshapa and Kana (rice particles) should be scattered all over the *Sutikagara*. The fire should be lit in the place. Else should be followed as described in *Vranitopasniya* context³.

There are sixty procedures for the management of wound, mentioned by Sushruta. *Rakshakarma* or *Rakshavidhanis* one of them⁴. The wound should be fumigated by pain relieving and *Rakshoghana* fumes and the protection

should be ensured by reciting hymns. Again Sushruta says, the wound should be fumigated with a mixture of powders of *Guggulu*, *Agaru*, *Sarjarasa*, *Vacha*, *Sarshapa*, *Saindhava* and the leaves of *Nimbatree* along with *Ghrita*. The left over *Ghrita* then applied over the region of heart and other vital parts of the patients. Afterwards protective hymns should be recited as – May Brahma and other gods counteract sorcery (*Kritya*) and the dread of evil spirits (*Raksasa*), serpent demons (*Naga*), devils (*Pishacha*), celestial musicians (*Gandharva*), souls of paternal ancestors (*Pitra*), spirits (*Yaksha*), evil spirits (*Nishachara*) etc. In the same context Sushruta further spoke about the protection of strength, intellect, psyche, and understanding from the blessing of god *Indra*, *anu*, *Gandharva* and *Varuna* respectively⁵.

In *Chikitsa Sthan*, Sushruta says that wounds and patients should be protected from invisible creatures (*Nishachara*) by procedures like *Dhupana* and protective energy of the prophylactic prayer. He further advocated *Yama* and *Niyama* as a part of *Rakshakarma*. (Five *Yama* are non-violence, truthfulness, non-stealing, celibacy and abstinence from litigation. Five *Niyama* are cleanliness, satisfaction,

penance, spiritual study, service of the preceptor)⁶.

Acharya Vagbhata described similar *rakshakarama* as described by Charaka⁷ in addition, Vagbhata has also counselled use of herbs as *Brahmi*, *Indryana*, *Jivaka* and *Rishbhakato* be tied around hands or neck of the newborn. Dhupana should be done by *Gugglu*, *Agru*, *Sarjrasa* and *GauraSarspa*. Vagbhata also mentions use of *Balvacha* for it promotes *medha* (intelligence), *smriti* (memory), health and longevity of the baby⁸. In *Astangsamgraha*, Vagbhata described to tie a cotton pouch containing *Hingu*, *Vacha*, *Turuska* and *Sarshapa*, on the upper frame of door and head side of bed and also in the neck of infant and mother. Further there is mention of *Dhupana* for baby's apartment consisting of dried crow feathers along with *Trivrita*, *Vacha*, *Kustha*, *Srivesta*, *Sarshapa*, added with little *Ghritha*⁸. Acharya Vagbhata has also advised the use of protective measures on the 6th night of birth (*SasthiRatri*). He says that on 6th night of birth of the newborn, all family members and friends remain awaken and *rakasakarma* should be performed by offering sacrifices. Ancient scholars have observed very closely about the most crucial period of infancy and marked it up to six days⁹. Care of 6th night indicates that from

birth to 6th days period, babies are most susceptible to various infections and other complication. After one week, the incidence of infections and complication reduce, therefore the chances of survival increase.

According to *Aroyakalpdruma*, *Kumaramaragara* should be fumigated. The horns, hooves of *Krishna*, *Saralu*, *Laya*, *Avi-Dears* and *Gandaka* along with *Gojihva* and *ShewtaSharshapa* (white mustard) are taken in equal amount, powdered and mixed with butter and heated. The fumes generated (*Dhupana*) helps to protect the child¹⁰.

Properties of Raksha karma drugs:

The phytochemical screening demonstrated the presence of different types of compounds like terpenoids, tannins, deoxy sugars, saponins, phenolic compounds, and flavonoids which may contribute for the antimicrobial action of the above medicinal plants. The methanolic extract of *Acacia catechu* (*Khadira*) was found to have antimicrobial activities against six species of pathogenic and non-pathogenic microorganisms: *Bacillus subtilis*, *Staphylococcus aureus*, *Salmonella typhi*, *Escherichia coli*, *Pseudomonas aeruginosa* and *Candida albicans*¹¹. Mustard can be used as an effective antimicrobial agent. Mustard Essential Oil affects the

concentration of intracellular component, such as ATP in both *Pseudomonas* and *Staphylococcus aureus*, bacteria and affects the pH suggesting that cytoplasmic membrane is involved in the antimicrobial action of mustard EO^{12,13}. The ethanolic extract of *Zizyphus sativa* Gaertn (*Badri*) fruit contains anti-inflammatory, analgesic, antipyretic, bronchodilator and antimicrobial activities¹⁴. The essential oil, chloroform extract and seven sesquiterpenoids compounds newly isolated from the oleo-gum-resin of *Commiphora mukul* (*Guggul*) showed a wide range of inhibiting activity against both Gram (+) and Gram (-) bacteria. This suggests the antibacterial activity *C. mukul*¹⁵. *Acorus calamus* Linn. Rhizomes (*Vacha*) was found to have antimicrobial activities on various microorganisms including bacteria, yeasts and filamentous fungi¹⁶. The aqueous and methanol extracts of *Aquilaria agallocha* Roxb. (*Agaru*) along with dry powder of leaf and bark of the plant was screened for the presence of phytochemicals. Also they were tested for antibacterial activity against pathogenic bacteria such as *Shigella flexneri*, *Bacillus brevis*, *Pseudomonas aeruginosa* and *Bacillus subtilis*. The result indicates the presence of alkaloids, anthraquinones, triterpenoids,

tannins, fixed oils and fats and glycosides in methanol extracts whereas saponins, fixed oils and fats, alkaloids and triterpenoids were found in the aqueous extracts¹⁷. *Aconitum heterophyllum* (*Ateesha*) also contains potent antibacterial properties. Two new aconitine-type norditerpenoid alkaloids 6-dehydroacetylsepaconitine (1) and 13-hydroxylappaconitine (2), along with three known norditerpenoid alkaloids lycoctonine, delphatine and lappaconitine were isolated from the roots of the *Aconitum heterophyllum* Wall. These compounds exhibited significant antibacterial activity. The structure of compound 1 and 2 were deduced on the basis of their spectral data¹⁸. The essential oils of *Ferula asafetida* have potent antibacterial effect¹⁹.

DISCUSSION

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 with the use of clean clothes, beddings etc. The fumigation (*dhupana*) of the *Sutikagara* (sanatorium/labour room) by various drugs is mentioned to protect the baby from various opportunistic infections.

The various drugs mentioned in *dhupana* karma have antiseptic and antimicrobial properties which have been also proved experimentally in various studies. As per ancient text, room should be kept warm by fire, lighting in the room. Now a days Radiant warmer are available for this purpose.

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 sepsis and antisepsis 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. Appropriate hygiene is advised throughout the newborn care to decrease infection episodes during infancy.

Proper sterilization is helpful in early recovery and fumigation with different chemicals is one of the methods to achieve sterilization. Same principle also applies during mother and child care. From literature review it is clear that from ancient Ayurvedic medicine there was concept of safety of diseased person with regards to evil spirits. Ayurveda speaks about care of diseased person from evil spirits and also

give enough importance to safe guard the patient from visibly present creatures, as insects etc. What we found interesting in Ayurvedic literature is the use of different kinds of herbs during preparing different kinds of decoction or placing them near the mother and the child's body or spreading them over the room and also fumigating with their smoke. Here we need to look for the antimicrobial properties of these different herbs based on their ayurvedic and modern pharmacological properties. In a recent study it was found that plants also protect themselves against being eaten by secreting natural pesticides and other toxins, phenols, flavonoids, isoflavones, glucosinolates, etc. These different chemicals are usually bitter, pungent or astringent in taste. In addition to their bactericidal or biological activity these substances may provide a defense against predators²⁰.

When we look up the herbs used for different purpose of *Rakshakarmain* ayurveda, we found that most of these herbs are bitter, astringent and pungent in taste, because of the presence of different chemical constituents in them. These herbs have bactericidal and insecticidal activities which safeguard the patient from infections. In a recent clinical study, it was found that fumigation with a mixture of traditional

Chinese medicine promotes wound healing and prevents the wound of postoperative complications, including pain relief, reduce swelling and infection etc. Wound Healing on the 1st Fumigation on the Mixed Hemorrhoid Complications of Postoperative Wound Healing and Postoperative Pain Edema²¹.

Another aspect is related with hymn chanting and *homa* in the room of the patient probably a kind of psychological counseling to the patient, so she can feel well, safe and cared. This is to provide a positive environment for the healing of wound and also support to the mother in post partum phase to avoid any kind of stress. Recent studies add to growing evidence that psychology impacts wound repair, and highlight in particular the positive role of social support on modulating the negative effects of stress²².

CONCLUSION

From the above description it is evident that, *Rakshakarma* was used extensively in the cases of mother and child care. In earlier times there were different kinds of decoctions of herbs were used for cleaning the wound. Same context Sushruta also give enough importance to *Rakshakarma* procedure, where he spoke

about the use of *Dhupana* (Fumigation) of different herbs around the wound and patients and the room of the patient. After delivery the mother and the newborn baby, both can be well compared with a wounded person and need special care. Ayurvedic Acharyas have advocated measures which aim to protect the newborn

baby from various infections as in use of clean clothes, beddings etc. *Dhupana* (fumigation) of the *Sutikagaraby* various herbs is mentioned to protect the baby from various infections. It is probably because of the antiseptic and antimicrobial property of *Dhupan karma*. This procedure can be correlated with that of fumigation procedure of sterilization in current modern medical practices. Chanting hymns and practicing *Yama* and *Niyama* provide a psychological support to the patient, which is helpful for quick recovery and rehabilitation of the patients. Thus we can say that *Rakshakarma* procedure provides a complete physical and psychological protection to the mother and the child.

REFERENCES

1. V.S.Apte. *The Practical Sanskrit-English Dictionary*. The Digital Libraries of South Asia. p. 1322.
2. CharakaSamhitaSharirasthana 8/47 p.950 BrahmanadaTripathi (2000). Varanasi; ChaukhambhaPrakashan.
3. SushrutaSamhitaSharirasthana 10/26 p.78. Atridev (1997). New Delhi, MotilalBanarasi das Publication.
4. *SushrutaSamhita (Sutra Sthan-5/17-33, Sutra Sthan 19/23-31, Chikitsa Sthan 1/133, 5th edn.)*, Atridev (1997). New Delhi, MotilalBanarasi das Publication.
5. G.D.Singhal (1981). *Ancient Indian Surgery(The Preoperative Arrangements, Vol-1, p.94-98)*, New Delhi, Chaukhamba Sanskrit Pratisthan..
6. *SushrutaSamhitaChikitsa Sthan 1/133, 5th edn* Atridev (1997), New Delhi, MotilalBanarasi das Publication.
7. AstangaSangrahaUttaratantra 1/16-21 p.2-3).3 Varanasi, ChaukhambaOrientalia Publication. (2003).
8. *AstangaHridaya (UttaraSthan 1/25-27)*, Varanasi, ChaukhambaOrientalia Publication. (2003).
9. A.S.Utt.1/26, A.S.Utt.1/21
10. Arogyarakshakalpdruma.1/Pg 6-7 Varanasi, Chaukhamba Publication.
11. Bhawna Sunil Negi and Bharti P Dave, *In Vitro Antimicrobial Activity of Acacia catechu and Its Phytochemical Analysis*. Indian J. Microbiol. 2010 Oct; 50(4): 369–374. Published online 2011 Feb2. doi: 10.1007/s12088-011-0061-1
12. MitsuoTakasugi, NobukatsuKatsui and Akira Shirata. *Isolation of three novel sulphur-containing phytoalexins (antimicrobial agents) from the chinese cabbage Brassica campestris L. ssp. pekinensis(cruciferae)* J. Chem. Soc., Chem. Commun., 1986, 1077-1078 DOI: 10.1039/C39860001077, Paper
13. B. Mahesh and S. Satish *Antimicrobial Activity of Some Important Medicinal Plant Against Plant and Human Pathogens* 1 2 Department of Studies in Applied Botany and Biotechnology, 1 University of Mysore, Manasagangotri, Mysore-570 006 Herbal Drug Technology Laboratory, Department of Studies in Microbiology, 2 University of Mysore, Manasagangotri, Mysore-570 006
14. Arif H. Shah, Abdullah M. Ai-Bekairi, ShoebQureshi, Abdulrehman M. Ageel *Zizyphussativa fruits: Evaluation of some biological activities and toxicity*. Article in Phytotherapy Research 3(6):232 - 236 · January 1989 with 122 Reads DOI: 10.1002/ptr.2650030603
15. M. AsifSaeed , and A. W. Sabir *The essential oil, chloroform extract and seven sesquiterpenoids compounds newly isolated from the oleo-gum-resin of Commiphoramukul showed a wide range of inhibiting activity against both Gram (+) and Gram (-) bacteria*. Department of Pharmacy, University of the

Punjab (AllamaIqbal Campus), Lahore-54000, Pakistan

16. Phongpaichit , S., Pujenjob , N., Rukachaisirikul , V. and Ongsakul , M. Songklanakarinar *Acorus calamus* Linn. rhizomes was investigated for its antimicrobial activities o various microorganisms including bacteria, yeasts and filamentous fungi. J. Sci .Technol ., 2005, 27(Suppl. 2) : 517-523

17. Manasi Dash 1, Jayanta Kumar Patra2 ,PrasannaPriyadarshini Panda *Phytochemical and antimicrobial screening of extracts of Aquilaria agallocha Roxb.* 1 Trident School of Biotech Sciences, TACT, Bhubaneswar, Orissa-751024, India. 2 P. G. Department of Biotechnology and Bioinformatics, Academy of Management and Information Technology, Bhubaneswar, Orissa-751009, India. Accepted 22 September, 2008

18. Ahmad M1, Ahmad W, Ahmad M, Zeeshan M, Obaidullah, Shaheen F. *Norditerpenoid alkaloids from the roots of Aconitum heterophyllum Wall with antibacterial activity.* J Enzyme Inhib Med Chem. 2008 Dec;23(6):1018-22. doi: 10.1080/14756360701810140

19. N.Samadi, S.Shahani, H.Akbarzadeh, S.Mohammadi-Motamed, E.Safaripour, F.Farjadmand, M.Eftekhari, H.R.Monsef-Esfahani, M. Khanavi, *Essential oil analysis and antibacterial activity of Ferula assa-foetida L. aerial parts from*

Neishabour mountains. Research Journal of Pharmacognosy (RJP) 3(3), 2016: 35-42
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20. Adam Drewnowski,. Carmen Gomez-Carneros, (2000). *Bitter taste, Phytonutrients, and the Consumer: A Review, Am J Clin Nutr; Vol. 72, no. 6, 1424- 1435.*

21. <http://mt.china-papers.com/2/?p=38390>.

China Papers, (2010).

22. Broadbent E, Koschwanez HE. (2012). *The psychology of wound healing*, Current Opinion in Psychiatry; Mar 25(2):135-40. doi: 10.1097/YCO.0b013e32834e1424. 156976