

AYURVEDIC APPROACH OF MANAGEMENT OF NEONATAL JAUNDICE: REVIEW OF ARTICLE

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ABSTRACT

Jaundice occurs in most newborn infants. Most jaundice is benign, but because of the potential toxicity of bilirubin, newborn infants must be monitored to identify those who might develop severe hyperbilirubinemia and, in rare cases, acute bilirubin encephalopathy or kernicterus. The focus of this article is to reduce the incidence of severe hyperbilirubinemia and bilirubin encephalopathy while minimizing the risks of unintended harm such as maternal anxiety, decreased breastfeeding, and unnecessary costs or treatment. Although kernicterus should almost always be preventable, cases continue to occur. This article provides a framework for the prevention and

management of hyperbilirubinemia in newborn infants of 35 or more weeks of gestation. Its *Ayurvedic* management includes use of proper antenatal care, *Suryadarshana*, *Chandradarshana*, *madhu* mixed with *ghrita* or *ananta* with *madhu* and *ghrita*, *Stanyashodhak chikitsa* and some medicines likes *Kumarkalyana rasa*, *Triphala*, *Guduchi* and *Nimbatra swarasa*.

KEYWORDS: Jaundice, Extrinsic causes, intrinsic causes, treatment, *Ayurvedic* management.

INTRODUCTION

A common condition in newborns, jaundice refers to the yellow color of the skin and whites of the eyes caused by excess bilirubin in the blood. Bilirubin is produced by the normal breakdown of red blood cells. Normally, bilirubin passes through the liver and is excreted as bile through the intestines. Jaundice occurs when bilirubin builds up faster than a newborn's

liver can break it down and pass it from the body.

Reasons for this include

- Newborns make more bilirubin than adults do since they have more turn over of red blood cells.
- A newborn baby's still-developing liver may not yet be able to remove adequate bilirubin from the blood. Too large an amount of bilirubin is reabsorbed from the intestines before the baby gets rid of it in the stool.

1. High levels of bilirubin — usually above 25 mg — can cause deafness, cerebral palsy, or other forms of brain damage in some babies. In less common cases, jaundice may indicate the presence of another condition, such as an infection or a thyroid problem. The American Academy of Pediatrics (AAP) recommends that all infants should be examined for jaundice within a few days of birth.

Why jaundice is more prevalent during newborn period?

If we assess neonatal jaundice according to adult parameter of jaundice estimation, it seems that most neonates get jaundiced. It is due to physiological polycythemia, shorter lifespan of fetal RBC, limited hepatic uptake, conjugation and excretion of bilirubin due to transient deficiency of receptor proteins and UDPGT enzyme in newborn especially in premature. It is also due to paucity of bacterial flora in the gut and over activity of betaglucuronidase enzyme in the newborn. So the increased bilirubin production, reduced hepatic clearance and enhanced enterohepatic circulation are the sole causes of increased prevalence of jaundice in newborn.^[2]

CAUSES

Most common causes of neonatal jaundice in India in order of incidence are physiological jaundice, immaturity, blood group incompatibility, antenatal and postnatal infections, G-6PD deficiency, cephalohematoma, certain drugs and breast milk jaundice.^[2]

In about one third cases the causes of neonatal jaundice are still unknown. The main textbook on *Ayurvedic* pediatric, *Kashyapa Samhita* describes the feature of jaundice as yellow discolouration of the eyes, nails, face, stool and urine with laziness (*nirutsah*), loss of digestive power (*nastagni*), desire to take blood (*rudhirspraha*).^[3] *Pishachi Jataharini* which is known to its yellow colour causes death of the baby after delivery on first day.^[4] Another

reason is *Paittik Stanyadusti* especially *Durgandhit Stanyadusti*.^[5] Baby feeding on milk vitiated by *Pitta dosha* also produces symptoms such as excessive thirst, feverish body, sweating and loose motion.^[6]

Ayurvedic approach for the management of neonatal jaundice

Firstly it is important to diagnose the probable physiology and pathology of jaundice. Baby should be clinically screened minimum twice a day from the birth in a good day light and its appearance, rate of increase and severity should be estimated so that starting of modern management like phototherapy and blood transfusion if needed could be done to prevent fatal bilirubin encephalopathy.

Use of proper antenatal care to the mother Avoidance of *pitta* vitiating *ahar vihar* during pregnancy and after delivery, Avoidance of *dhoompana* (smoking) and *swedana* because it may produce *vivarnata* (discolorations) to the fetus.^[7] Use of *Ayurvedic* drugs for the common problem of pregnant mother in spite of harmful allopathic drugs. *Ajeerna* (indigestion) should be avoided during lactation.

Suryadarshana and Chandradarshana

In *Kashyapa Samhita* there is indication of *Suryadarshana* (putting the baby in sunlight) and *Chandradarshana* (putting the baby in moonlight) of baby during 1st month of life. It may be a type of phototherapy for preventing the neonatal jaundice on that time. *Suryadarshana* and *Chandradarshana* to the baby during 1st month of life shows that *Acharya Kashyapa* knew well about the need of light for the newborn baby.^[8]

Use of *jatakarma samskar*^[9, 10]

In this ceremony, there is use of *madhu* mixed with *ghrita*⁹ or *ananta* with *madhu* and *ghrita*.^[11,12] Initiating early feeding with *madhughrita* may help in disturbing the enterohepatic circulation which is an important cause of neonatal jaundice in exclusively mother milk fed babies. Besides interrupting enterohepatic circulation of bilirubin, *madhughrita* also provides nutrients and energy which is helpful to maintain glucose level and immunity, ultimately maintaining the general condition of the body.

Acharya sushruta and *Vagbhatta* described 1st three days regime after birth.^[11,12] First day *Ananta* with *Madhu sarpi* thrice, on second and third day *Ghrita* medicated with *Lakshmana*. Exclusively breast fed babies are likely to have higher bilirubin level due to inadequacy of

lactation during 1st three days of life.^[13] This three days regime help in this condition. *Stanyashodhak chikitsa* to the lactating mother *Paittik stanyadusti*, especially *durgandhit stanyadusti*⁵ is one of the important causes for neonatal jaundice so there is need to treat this via the use of *pittashamak ahar vihar* to the mother.

Mother should be advised to take

a. *Karkatshringi, ajshringi, triphla, rajani, vacha with sheetambu*.^[14]

b. Powder of *dhatu, trikatu* and *haritaki* with *madhu*.^[15] Paste of below mentioned medicines should be applied over the breasts kept until dry. After drying of *lepa* and washing it off from breast with water, baby should be fed. Composition of *lepa* may be^[16]

1) *Sariva, usher, manjishtha, sleshmataka and raktachandana* or

2) *Tejpatra, sugandhabala, raktachandana and usheer*.

Some useful medications

There is a large description is found in *ayurvedic* literature indicating aetiopathogenesis, prevention, principles of management and medications of jaundice. These measures can be applied in case of newborn very cautiously. Some medications which may prove beneficial in case of newborn jaundice are as follows

Kumarkalyan rasa:^[17] *Triphla, guduchi or nimb patra swarasa with honey*.^[18] *Haridradi ghrita*^[19] *Munda lauh bhasma*^[20], *mandoor bhasma*^[21] or *punarnava mandoor*. Coconut oil: most important as conservative management in case of hepatitis or in obstructive jaundice.^[22] As it contains medium chain triglycerides and there is no need of bile for its absorption, giving energy and other fat soluble nutrients to the body.

CONCLUSION

Jaundice is the most common disease during neonatal period mostly due to increased hemolysis, decreased hepatic clearance, enterohepatic circulation, immaturity, blood group incompatibility, infections, *pattik stanyadusti* or excessive vitiation of pitta in the body. *Ayurvedic* management of newborn jaundice mostly comprises of proper antenatal care, *Suryadarshana* and *Chandradarshana*, use of *madhu* mixed with *ghrita* or *ananta* with *madhu* and *ghrita*, *Stanyashodhak chikitsa* and some medicines likes *Kumarkalyan rasa*, *Triphla, guduchi or nimbpatra swarasa* with honey.

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