

NEONATAL JAUNDICE AND ITS AYURVEDIC MANAGEMENT

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Received: May 18, 2018

Accepted: June 30, 2018

ABSTRACT

Bilirubin is a yellow colored material that the human body creates during the process of replacing old red blood cells in the blood. The liver helps in breaking down the bilirubin so that it is flushed out of the body through stools. The concentration of red blood cells in babies is higher. Therefore, there is an increase in the normal range of bilirubin for newborn baby. Neonatal jaundice occurs when the blood of the babies indicate a high level of Bilirubin. This level contributes to a change in the colour of the baby's skin and the white of his eyes as it turns yellow. This condition in babies due to the high unconjugated bilirubin levels. In most of the cases, level of serum bilirubin is not raised that much so as to cause fatal brain damage. 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 Nimbpatra swarasa.

Keywords: Bilirubin, Neonatal jaundice, Stanyashodhak Chikitsa, Triphala, Antenatal care, Madhu.

INTRODUCTION

Jaundice is the yellow discoloration of the skin and sclera due to raised serum bilirubin. It is the most common abnormal finding during early neonatal period.¹ Most of the cases of neonatal jaundice are physiological and the level of serum bilirubin is not so much raised to cause fatal brain damage due to bilirubin encephalopathy but every case of neonatal jaundice should be managed very sincerely to prevent such consequences because of poor brain blood barrier during neonatal period. Though modern science has developed many modalities to manage neonatal jaundice but Ayurvedic approach for its prevention and treatment is not less important.

LITERATURE REVIEW

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 beta-glucuronidase 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 of neonatal jaundice:

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 paediatric, Kashyapa Samhita describes the feature of jaundice as yellow discoloration 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 Stanyadusti⁵. Baby feeding on milk vitiated by Pitta dosha also produces symptoms such as excessive thirst, feverish body, sweating and loose motion.⁶

Signs and Symptoms of Neonatal Jaundice-

Hyperbilirubinemia symptoms vary depending on the cause of the jaundice and the level of bilirubin increase. Following are the sign and symptoms of neonatal jaundice;

Yellow colored skin is one of the most visible sign of jaundice.

Neonatal jaundice skin symptoms first appear on the face and then move on gradually to the other part of the body.

Drowsiness is a symptom of severe jaundice.

Neurological signs such as seizures, high pitched crying, muscle tone changes might occur. These sign must be attended to immediately to avoid complications.

Baby passes dark and yellow urine.

Hepatitis and Biliary Atresia increase the conjugated bilirubin level. This increase results in jaundice, which is signified by pale stool and dark urine.

Yellow colored sclera is another predominant sign. In extreme cases, the limbs and abdomen display yellow coloration.

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 Aahar Vihar during pregnancy and after delivery, Avoidance of Dhoompana (smoking) and Swedana 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 knows well

About the need of light for the newborn baby.⁸

Use of Jatakarma sanskar^{9,10}

In this ceremony, there is use of Madhu mixed with Ghrita⁹ or Ananta with Madhu and Ghrita^{11,12}. Initiating early feeding with Madhu-Ghrita may help in disturbing the enterohepatic circulation which is an important cause of neonatal jaundice in exclusively mother milk feed babies. Besides interrupting enterohepatic circulation of bilirubin, Madhu-Ghrita 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 first 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 feed 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 Paatik Stanyadusti, especially Durgandhit Stanyadusti⁵ is one of the important causes for neonatal jaundice so there is need to treat this via the use of Pittashamak Aahar Vihar to the mother. Mother should be advised to take-

Karkatshringi, Ajashringi, Triphla, Rajani, Vacha with Sheetambu.¹⁴

Powder of Dhatri, Trikatu and Haritaki with Madhu.¹⁵ Paste of below mentioned medicines should be applied over the breast kept until dry. After drying of Lepa and washing it off from breast with water, baby should be feed. Composition of Lepa may be¹⁶ Sariva, Usher, Manjishtha, Sleshmataka and Rraktachandana or Tejpatra, Sugandhabala, Raktachandana and Usheer.

Some useful medications: There is a large description is found in Ayurvedic literature indicating etiopathogenesis, 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 rasa¹⁷, Guduchi or Nimb Patra Swarasa with Honey.¹⁸ Haridradi Ghrita¹⁹ Munda lauh Bhasma,²⁰ Mandoor Bhasma²¹ 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, Paatik 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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