

ABHYANG THERAPY FOR GROWTH AND DEVELOPMENT OF LOW BIRTH WEIGHT NEONATES: A CASE STUDY

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ABSTRACT

Neonatal Period is very crucial phase of life this period is foundation of adult human life. Neonatal care is therefore very important area of health practice. Babies with a birth weight of less than 2500gm irrespective of the period of their gestation are classified as Low birth weight (LBW) babies. Nearly 15% of babies worldwide are LBW. Low birth weight is major determination of malnutrition during infancy because over 40% of LBW babies are malnourished at one year of age. Aetiologies pathophysiology and management of LBW babies is given in many literature. Ayurveda describes that low birth weight like condition are caused due to vitiation of *Vata Dosha* & undernutrition and *Garbhavyapad* explained in various Ayurvedic

Samhitas can be correlated with IUGR babies in Ayurvedic classics procedure of *Abhyanga* in *Jatmatra Paricharya* (management of Newborn) is mentioned & this procedure is reported to improves weight gain, by better growth good sleep & better strength to baby here, a case of Low birth weight neonate treated with Ayurvedic management *Abhyang* therapy with *Shankhpushpi* tail is recorded.

KEYWORDS: Low birth weight, *Abhyang*, *Garbhavyapad*, *Vatdosha*, *Jatmatra paricharya*, *ShankhpushpiTail*.

INTRODUCTION

Babies which have their weight at the time of birth less than 2500 g disregarding of their interval of gestation are called as Low birth weight babies. Premature delivery & poor weight

gain during intrauterine life are important causes. For Hospitalization. Low birth weight neonates accounts for high of morbidity & mortality in India, & about 6-8 million birth weight neonates are born annually here.

LBW babies includes preterm & term small form dates babies (IUGR) There are multi factorial causes of preterm delivery and all are Interlinked with each other. Like, Foetal, placental uterine & maternal Contents constituents some paediatricians classify baby as small for dates if its birth weight fall below 10th percentile for the period of gestation while other accept the dividing line of -2SD or 3rd percentile.

Babies with intrauterine Growth failure are composed of Three Types. Asymmetric IUGR – symmetric IUGR & Mixed. In Asymmetric IUGR Fetus gets malnourished during the latter Part of Gestation due to placental dysfunction and appears long thin and marasmic. Head circumference and brain weight are unaffected while internal organ such as liver is grossly shrunken, here the growth retardation is due to reduction in "Size" of cell than they retain the potentiality for normal growth on nutritional rehabilitation.

In case of symmetric IUGR Intrauterine Infection & certain genetic & chromosomal disorders exert their adverse influence from early embryonic life & result in reduced growth potential of the fetus, Their cell population is also reduced resulting in permanent mental & Physical growth retardation and baby is proportionately small in all Parameters including head size. mixed small for dates babies show varying degree of reduction in Cell population & their Size.

In Ayurvedic classics direct reference of low birth weight is not given premature babies can be correlated with *AkalpraSuta Balak Vata (Vayu)* is responsible for dryness of fetus is said to be *GarbhaShosh* is a condition that can be correlated with IUGR fetus.

Navjat Balak Paricharya chapter was explained in Ayurvedic textbook which had explained newborn care in sequential way and *Abhyanga* procedure is explained for *Navjaty Balaka*, Considering the Smooth transition of new born baby Ayurveda explained very delicate & sophisticated protocol for newborn baby under *Jatmatra Paricharya Acharya Sushruta* advocates *Abhyanga* (oil massage) softens body checks *Kapha* and *Vata*, promotes *Dhatus* and provide cleanliness complexin strength. *Abhyanga* has positive effect on growth and development of LBW babies *Abhyanga* should be done in *Anuloma gati* (forward direction)

ie. in the direction of hair with the Palm (from proximal end to distal end of trunk & extremities)

- Order of Massage Shirobhyanga Padabhyanga

Abhyang to arms & hand Abhyanga to abdomen and chest Back

Special to hip Special to abdomen

Acharya Charaka, Acharya Sushruta & Acharya Vaghabhata described *Abhyanga* as a part of *Dincharya* and *Rutucharya*.

Shankpushpi Tail is Ayurvedic *Tail* (oil) mentioned in *Bhaishjyarnavali* contain drugs which has *Brimhaniya*, *Balya* properties and some of the *Rasayan Dravyas* are also there so it acts on the *Dhatu* and *Dhatus* get nourished as mentioned in *Phashruti* of this oil and in this way Body get nourished hence considering *Samprapti* and *Chikista* the case study was carried out.

CASE REPORT

A 8 days old female patient born 37 week completed (full term). normal vaginal delivery cried Immediately after birth having birth weight - 2.22kg parents brought baby for normal new born check up at Kaumarbhritya department of Government Ayurved College & Hospital Nanded. & we have taken this child in the Study because child's birth weight was 2.22kg & diagnosed as LBWB

H/o Past illness

No H/o Birth asphyxia, Jaundice, seizure sepsis H/o calcium and vit D3 supplementation taken.

Family History

No H/o consanguinity. Maternal- Not Specific Paternal - Not specific Birth History.

Antenatal

Ini T.T. 0.5ml 2 doses IM received Iron and folic acid tablets received

No H/o oligohydromnious / Polyhydromnious / PTH / HTN USG - 3 done (normal reports)

Perinatal

Full-term (37 weeks) normal vaginal delivery, cried Immediately after birth, Birth wt 2.22 kg Postnatal.

- NO H/O NICU admission
- NO HIO Birth asphyxia, seizure and neonatal jaundice. Anthropometry
Length – 47cm Weight - 2.16 kg HC – 32.4cm MAC – 8.5cm CC – 29cm

Immunization-OPV

Hep-B given at birth BCG

General Examinations Pulse- 126/ min Respiratory rate- 32/ min Temp- 98.7 f

Pallor - no Af - open Icterus - no

CRT - < 3 sec

Systemic examination RS - AEBC clear

CVS - S₁S Normal, No mummur CNS - conscious oriented

PA - Soft, No abdominal distension

Assessment criteria

A. Subjective criteria

1. Activity

Grade 2 - Less response to stimulation Grade 1 - Active after stimulation Grade 0 - Active and playful baby

2. Achievement of developmental milestone as per age Grade 2 - poor

Grade 1 - Good Grade 0 - Excellent

B. objective criteria

1. Weight

2. Length

3. Head circumference

4. Chest circumference

5. Mid Arm circumference

Treatment given

25 ml *Shankhpushpi Tail* for *Abhyanga* before bath and before breast feeding daily in morning and evening 10 min for consecutive 45 days was done.

OBSERVATION AND RESULTS

Sr.No.	Assessment criteria	Before t/t	1 st follow up	2 nd follow up	3 rd f/u last
1.	Activity	2	1	1	0
2.	Achievement of developmental milestone as per age	2	2	1	0
3.	length	47 cm	48.5cm	50cm	52cm
4.	Weight	2.16 kg	2.56 kg	3.30 kg	4.1kg
5.	Head Circumference	32.4 cm	33cm	34.9cm	36cm
6.	Chest Circumference	29 cm	29.6cm	31.6cm	32.9cm
7.	Mid Arm Circumference	8.5 cm	8.7cm	9cm	9.5cm

Abhyanga was done by mother/ close Relatives to the baby (Patient) for 45 & days and baby was examined on 15th 30th 45th day. During this period patient didn't develop any other complaints No any allergy or rash to *Shankhpushpi Tail*.

DISCUSSION

Low birth weight is a significant Public health problem and it involve range of Short and long term consequences low birth weight affect growth and development of child due to this there is increased risk of malnutrition, Infections and neurodevelopment of Child & mortality rate is also high compared to normal birth weight babies.

An Ayurveda treatment is beneficial where IUGR is due to placental Insufficiency & due to lack of maternal nutrition. Mother should be educated about their child massage, It is more effective as it creates an emotional bond between mother & their child also it is effective & Economically cheaper method. it is essential considering the economic states of the Individual as most of IUGR babies are from low socio economic Status.

In Ayurveda there is new born care (*Jatmatra Paricharya*) which Includes *Snana*, *Abhyanga*, *lehen Dhoopan* out of these *Abyanga* is more important. & this procedure of *Abyanga* can be practiced daily traditionally for neonate care *Abhyanga* is the Fantastic way of developing bond between mother and baby as oxytocin is released in both givers & receivers body and oxytocin is the hormone which help to provide us loving and nurturing feeling Infant massage therapy contributes to Development- It Stimulate growth and development of baby body Mind and spirit nurturing touch help to enhance digestion process by stimulating our food absorption hormones, glycogen and Insulin. Infant massage has also been shown to be effective at reducing the symptoms associated with constipation gas and colic. Help in weight and Height gain. The skin of a Preterm infant allows significant absorption of fat since it is thinner and more Vascular so it may result in greater caloric intake and consequently a better

weight gain.

During delivery while passing through birth canal the baby may experience exertion to relieve such stress and strain to Promote good circulation *Abhyanga* is done. Application of Tail to the skin by massaging in specific manner is known as *Abhyanga* Acharya Sushruta explained the route of absorption for *Abhyanga* as *lepa*, *Parisheka* & *Avagaha* in Sushrut sharirsthan According to Acharya Dalhan a time duration taken by the oil to reach the *Romant* (hair Follicle) when *Abhyanga* is performed is 300 *Matrakal* (95 sec) then oil reaches the skin, then to reach upto *Mamsa dhatu* 600 *matra kal* (190 sec) time will be required to brought over all effect *Sneha* (oil) must reach upto *Majja Dhatu* & time required for this is 900 *Matra Kal* (280 sec). Therefore daily Routine 5 to 10 minute *Abhyanga* is sufficient Acharya Kashypa says *Abhyanga* is *Nidrakar*, *Shramhar* and *Balyavardhan*. *Abhyanga* prevent the aging of body tissues relieve pain, fatigue & lassitude. Increase the working capacity of senses nourishes the body makes the skin Fair & attractive. Increase Stamina or strength & prolonging the life span of human being.

Application of *Shukhpushpi Tail* increases strength. Memory, complexion, capacity to handle stress. *Shankhpushpi tail* contain *Shankhpushpi*, *Vasa*, *Mahanimba*, *laksha* which have *Balya*, *Bruhniya*, *Pushtikar*, *Vatahar* and *Medhya* properties it also contains *Kanji* - Important *Dravya* in *Sandhanvarga* and also *Vatnashaka*, *Mastu* - which had properties like *Baldayaka Strotomargvishodha*. It also contain *Gandhadravya* indicative of their capability to bring out cell division i.e. they generate healthier tissue. *Dravya* due to all these properties of *Shankhpushpi Tail Abhyanga*, has shown Positive effect on growth & development of child.

CONCLUSION

Conclusion was drawn on the basis of above results and discussion as follows

This study prove that child *Abhyanga* with *Shankhpushpi tail* is an effective way to Improve child health i.e. growth and development. Mother and children emotional bonding i also very effective in child's development which was achieved by *Abhyanga*. *Abhyanga* is a traditional Procedure & it is safe Procedure, It has no harmful effect. The *Veerya* of the Tail, which is use for *Abhyanga* enter into *Tiryankagata Dhamanis* and with the help of these Dhamani it spread into all Seven Dhatu and then all over skin where it Improves qualities of Dhatu and nourishes the body. As compared to term babies preterm baby' growth development occurs slowly but with the help of *Abhyanga* we can manage growth & development of IUGR babies

effectively.

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