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Review Article

Common Parental and Physician Concerns in Neonates

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Abstract

The happiest moment in a person's life is when a child is born, but ironically, at the same time parents may be stressed with many concerns pertaining to their child's care. Experienced grandparents may be involved and assist in developing confidence in some families regarding baby's care, but it is the responsibility of the Paediatrician to address parental apprehension, guide them and help establish and develop a bond and confidence between mother infant dyad. In this brief article, we will discuss about common neonatal conditions of a healthy baby which may mimic pathology and cause unwanted fear in parents.

Keywords: Neonate, parents, pediatrician

The first 28 days of a baby's life called the neonatal period is usually the most stressful period for the parents, especially when it's their first child. Immediately after birth, bonding can be initiated in the delivery room by practicing "Breast crawl". It is recommended to start breastfeeding immediately after birth irrespective of the mode of delivery. Most babies tend to fall asleep after 1-2 hours of the active period after birth. Though babies can utilize glycogen as a source of energy, it is better to wake them and feed them to avoid low sugar levels. Most babies tend to pass urine at the time of delivery which may go un-noticed and hence a marginal time of 48 hours after birth is accepted for urination. Crying after voiding urine is also a normal phenomenon. Sometimes, there may be brick color staining of diapers, which is considered normal, as neonates have less uric acid absorption compared to adults. [1] Stool colour is green or black in the initial few days. Bathing the baby may be better in a warm climate and a gentle coconut oil massage is also advisable for stimulation and better bonding. Traditional oil installation in the nose and ear is strongly contraindicated as it can

lead to lung injury. Oral honey has also been linked to botulism toxicity.

Some female babies tend to have white discharge and bleeding from genitalia in the initial few days. It is called withdrawal bleeding and attributed to alteration in hormonal levels following birth. However, it is better to seek the advice of a pediatrician to rule out the hemorrhagic disease of newborn, if bleeding is severe. Eye discharge when present without redness, indicates blockage of duct draining tears. It does not need any antibiotic drops, but a proper nasolacrimal duct massage will suffice. It is normal for newborns to have an outward deviation of eyeball.

There can be multiple skin conditions causing anxiety in the parents. Pustules on skin may present in the neonatal period. When there is no redness around the pustules, it is called "Transient pustular melanosis" which is a normal phenomenon in an active neonate and does not need antibiotic. Similarly, a self-limiting condition called "Erythema toxicum neonatorum" presents as red rash with small fluid filled pustules up to 14 days. A prickly heat rash called Miliria is common in hot climates. It is due to blockade of sweat glands and only recommendation is to not apply anything topically. Bluish patches on the back and legs called "Mongolian spot" may be present in newborn. They gradually fade and disappear by 1 year of age. Neonatal acne may also present in exclusively breast-fed babies, and requires no medication except reassurance. Sometimes, the skin pigmentation deepens and the final complexion achieved is that of a fingertip or ear colour of the baby.[2] It is a common finding to loose hair at the back of the head in the neonatal period, as there are mainly in telogen phase of hair cycle.

It is important to understand various hunger cues in newborn like rooting, wriggling, stretching, sucking fingers, and agitated movements. When a hungry baby fails to receive milk, it gets distressed and develops attachment problems. The best maneuvers to enhance milk production are suckling, and completely emptying the breasts. During breastfeeding switchover from one breast to other should be done only after completely emptying the initial breast. This not only aids better milk production, but also ensures baby gets both foremilk and hindmilk. When the baby is fed only the initial foremilk, it may develop loose stools and have inadequate weight gain. On the other hand, only hind-milk feeding can result in constipation. Mothers with inverted nipples may not necessarily have feeding problems. Baby can latch and suck well if trained properly. Voiding urine six to eight times a day indicates normal fluid balance in the baby and is a sign of adequate milk consumption. Breast feeding in a lying down position is never a good idea in neonates due to their straight eustachian tube connecting the nose and ear, and can cause middle ear infections. It is important that a mother gets adequate nutrition, rest and sleep during lactation. To achieve better bonding, it is preferable to converse and interact with the baby during feeding. An infant who has cried excessively in the neonatal period, may display increased aggression, impulsivity, and violence later in life.[3]

Breast engorgement seen in few neonates is a normal finding as well. It will subside spontaneously and requires reassurance. Parents should be counseled not to express an engorged neonatal breast, as it causes trauma, inflammation, and sepsis. Sacral dimples measuring less than 5mm in diameter and less than 25mm from the anus are usually non-significant. Babies born to mothers with oligohydramnios can have lateral deviation of the foot which will subside as they grow older. Tongue-tie, phimosis, hymen tags are also normal in neonates. Until now, natal teeth have been rarely aspirated well enough to be extracted by a dentist, but if they are loose and hampering breastfeeding, it is warrants to be removed. [4] Unilateral undescended testis may be encountered in few babies and the testis may descend eventually in few months.

Conjunctival hemorrhages are common after birth and usually resolve within 4 weeks. Suprasternal retractions may be caused by floppy larynx called "laryngomalacia" are common in terms, particularly in mildly asphyxiated babies with large aretynoids; the baby is usually alert and accepting feeds. These retractions are usually exaggerated with crying and decrease in prone position. We may rarely encounter babies with thick meconium stain at birth to have rapid breathing which may take a few days to settle. Antenatal finding of milder grade of unilateral hydronephrosis usually subside and does not need any active intervention. In the current era, with the availability of good antenatal surveillance; findings like skin tags, accessory nipples, and ear tags do not need any routine renal scans as recommended previously.[5] Facial asymmetry due to nerve palsy may manifest in babies requiring instrumental delivery and usually subside in few months. If the nasolabial folds are preserved, deviation of the mouth is usually due to absence of a facial muscle called depressor anguli oris. These babies need to undergo a cardiac evaluation. Congenital facial asymmetry may occur due to abnormal intrauterine position and parallelism of the gums are usually lost.

Exposing the children to sunlight with an intention to treat jaundice is not recommended, especially in hot climates because there is no evidence supporting its benefit. Moreover it may cause thermal injury, and paradoxically worsen jaundice due to evaporation and dehydration.[6] Breast feeding jaundice occurs in a baby who has received inadequate feeds and breast milk jaundice occurs in few babies inspite of receiving adequate breast feeds. Babies with former condition demonstrate inadequate weight gain and proper feeding needs to be ensured. Whereas the babies with the latter condition thrive well and only require reassurance. Finally, it is advisable to maintain atleast 2 hours of gap between 2 successive feeds. This ensures optimal milk output, as it takes 2 hours for a milk producing hormone ‘Prolactin’ to reach its optimal levels.

Addressing the concerns of a Paediatricican, here are a few nuggets helping in diagnosis and management of various neonatal dilemmas. Diaper dermatitis rash usually spares the folds, and phototherapy rash does not appear in the diaper area as it is shielded from the phototherapy light. Isolated vesicle in scalp may be aplasia cutis, but multiple vesicles when associated with altered sensorium mandates to evaluate for HSV encephalitis. Meconium staining of nails and lanugo indicates that meconium was passed in utero 8-10 hours ago, which could lead to severe MAS (meconium aspiration syndrome). In a baby with retrognathia, it is mandatory to examine the palate as it could be a sign of a Pierre Robinson sequence. In IUGR, it is better to rule out TEF. Posture and genitalia are most consistent findings for gestational age assessment. Physical maturity is advanced in infants born to diabetic mothers and neurological maturity is advanced in IUGR babies. When performing a heel-to-ear maneuver in babies with knee contractures, the hip angle should be taken into consideration. A large posterior fontanelle indicates a need for hypothyroid evaluation, but however it is advisable to consider universal hypothyroid screening as it is a potentially a treatable condition.Underlying subgaleal hemorrhage may cause fluctuation in caput succedaneum. Subgaleal hemorrhage may be organized due to blood clotting. Physiological jaundice does not occur in post-term neonates.

A neurological exam in a neonate should be ideally performed in Braziltons stage 3 [7] .The fact that there is state-to-state variability indicates that the baby's cortex is functioning normally. The absence of habituation indicates a severe injury to the cortex. Previously, only moro’s reflex was done for neurological assessment, but now, it is recommended to perform a complete neurological examination to make a comment on child’s status. During

examination, it is better to administer Moro's reflex at the end, as cry following the reflex can pose a challenge to further evaluation, especially tone assessment. Presence of the grasp reflex in brachial plexus palsy indicates there is sparing of lower nerve trunks. In a baby with perinatal hypoxia, upper limbs tend to be in extension position, due to injury to the parasagittal area of the brain, which is a watershed area in term neonate. The increased dorsal curvature of the trunk suggests it may be due to severe HIE or secondary to Phenobarbitone therapy. In HIE, the prognosis is best predicted after 96 hours, when the cerebral oedema usually subsides. Any baby with opisthotonus posturing other than positional should be viewed with a suspicion of meningitis.

A wave runs from head to toe when we touch a sleeping baby; if you want to auscultate the baby, wait until that wave has disappeared, if we touch repeatedly before the disappearance of the wave baby will wakeup. For better visualisation of the ear, it is better to pull the tragus medially. For assessing low set ear consider moulding and start assessing from medial canthus . Always examine the cord, not just the vessels. Straight and smooth vessels indicate antenatal depression, which could be SMA (Spinal muscular atrophy).The time of appearance of every reflex is important because pupillary reflex does not occur until the baby is 28 weeks old. [8] To examine a baby's palm, we should never force open, but rather flex the wrist which would facilitate palm opening. Presence of a persistent cortical thumb indicates HIE. Decreased limb movement, especially during cry, would give a clue for septic arthritis.

Conclusion:

To conclude, it is natural for parents to have numerous concerns regarding their baby's health and parent targeted health education improves parental wellbeing and infant care.

References:

1. Stapleton, F. Bruder. "Renal uric acid clearance in human neonates." The Journal of pediatrics;1983:103(2): 290-294.
2. Visscher, M O et al. "Infant skin maturation: Preliminary outcomes for color and biomechanical properties." Skin research and technology : official journal of International Society for Bioengineering and the Skin (ISBS) [and] International Society for Digital Imaging of Skin (ISDIS) [and] International Society for Skin Imaging (ISSI); 2017:23(4): 545-551.
3. Perry, B. D. (1997). Incubated in terror: Neurodevelopmental factors in the "cycle of violence." In J. D. Osofsky (Ed.), Children in a violent society; The Guilford Press;1997:124–149.
4. Khandelwal V, Nayak UA, Nayak PA, Bafna Y. Management of an infant having natal teeth. Case reports. 2013 Jun 1;2013:bcr2013010049.
5. Deshpande, Sanjeev A., and Helen Watson. "Renal ultrasonography not required in babies with isolated minor ear anomalies." Archives of Disease in Childhood-Fetal and Neonatal Edition;2006: 91(1): F29-F30.
6. Johnston, Renea V., Jeremy N. Anderson, and Cheryl Prentice. "Is sunlight an effective treatment for infants with jaundice?." Medical journal of Australia;2003:178(8): 403-403.
7. Leijon, Ingemar. "Assessment of behaviour on the Brazelton scale in healthy preterm infants from 32 conceptional weeks until full-term age." Early human development;1982:7(2):109-118.
8. Robinson, J., and A. R. Fielder. "Pupillary diameter and reaction to light in preterm neonates." Archives of Disease in childhood;1990:65(1) Spec No: 35-38.