

Neonatal Tetanus: Still a Scourge after Elimination from India

Neonatal tetanus continues to be a cause of neonatal death in the low- and middle-income countries. Recently we managed two cases of neonatal tetanus at our institute. Both the families were migrants, one from Bihar and other from Jharkhand. Both the pregnancies were unsupervised and delivery was conducted at home. There was history of application of cowdung on umbilical stump in first case and oil in second case. Both infants presented in unstable condition to our centre; one died of refractory shock and the other developed nephropathy but recovered fully.

The 42nd World Health Assembly adopted a resolution to eliminate neonatal tetanus by 1995, through the increased coverage of tetanus toxoid (TT), clean deliveries and improved surveillance. The elimination of neonatal tetanus was defined as <1 case per 1000 live births in every district across the country. According to the WHO recommended methodology, 30 of the 36 States in India were validated as having achieved elimination of neonatal tetanus till December 2014 [1]. According to validation survey conducted by WHO in April 2015, Nagaland was the last state to achieve neonatal tetanus elimination. On 15th May 2015, WHO declared India free of neonatal tetanus [2].

As tetanus spores cannot be removed from the environment, the eradication is unlikely, and new phase of activities are required to sustain neonatal tetanus elimination [1]. These cases encountered by us suggest that neonatal tetanus continues to occur due to poor antenatal care and unhygienic delivery practices, particularly in migrant population. This migrating population is logistically difficult to track, but primary health workers should address this at-risk population at priority. With large number of migrant labour population in India, which remains at risk, it seems a daunting task for India's health policy makers to maintain elimination of neonatal tetanus. Efforts to sustain the elimination of neonatal tetanus can also reduce tetanus in the population in general [3].

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Toilet-training and Constipation

In his comprehensive review article on constipation [1], the author mentions the right age for toilet training. This is a perplexing topic as the fashion has swung from early to late training, and from a parent-oriented to a child-oriented approach. The terminology adds to the confusion: the terms 'toilet-training' and 'potty-training' are used interchangeably in the literature, and usually refer not specifically to the management of bowel movements but to the training of the child for bowel and bladder control [2], two totally unrelated matters that may vary widely in timing. The literature concludes (as in this review article) that the average child is toilet-trained at 2-

4 years, but defines toilet training as being capable of independently (a) removing the underpants, (b) sitting on the potty, and (c) doing it in time (d) for both micturition and defecation. It does not refer solely to the ability of the child to inform about his urge to defecate and hold on until seated by his parent on the potty, which is what most parents would understand by the term 'toilet training'.

I advise parents to go by the child's readiness for bowel training. By 1-1½ years, most children inform their parents after defecation. Soon they start showing signs of discomfort just before passing a stool, but often evacuate urgently. Within a few months they are able to control the urge long enough for their parents to seat them on the potty. Most children reach this stage well before their second birthday, and are not stressed by parental training, so long as they encourage but do not pressurise the

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children to control their bowels, and do not express displeasure if they dirty their diapers.

In Kerala, functional constipation in a toddler is frequently preceded by hard infrequent (once or twice a week) infantile stools in an exclusively breastfed baby due to inadequate fluid intake by the mother, sometimes associated with slowing of weight gain, squirming, and colic. The fluid intake of a lactating mother should be 3.1 liters [3] (*vs.* 2.2 liters/day in a non-pregnant woman). The local Ayurvedic tradition is to severely restrict fluids to less than a litre per day, in the belief that fluid intake after delivery causes local infection, a lax abdomen, and obesity, and interferes with the efficacy of traditional post-partum restorative medicines.

NEWTON LUIZ

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