

Drowning in Home Environment: A Little Recognized Mode of Fatal Injury in Indian Infants and Toddlers

Bucket-associated drowning in unattended infants and toddlers is not an uncommon occurrence; although, it remains largely unrecognized and under-reported [1-3]. There is a scarcity of published reports in medical journals on these largely preventable deaths in India [4,5].

We performed a descriptive analysis by internet search of news reports in well-known Indian newspapers to gather information on such deaths by using different combinations of keywords. National crime record bureau (NCRB) of Indian Police, and Ministry of Health and Family Welfare, Government of India Websites were also assessed for available data [6].

From April, 2016 to March, 2022, there were 18 drowning reports at home that resulted in fatalities across India. On Pubmed search, we found a population based study, where two babies both aged 1.5 years under care of mothers drowned in water storage vessels and a 1-year-old boy who nearly drowned in concentrated sugar syrup (*chashni*) made at marriage home [4,5]. Thus, data on a total of 20 drowning deaths at home were extracted. We excluded drowning deaths occurring anywhere except buckets/water storage vessels occurring in home environments.

Majority (65%) of victims were boys aged 12-18 months, and most (85%) were playing unattended. Two babies were fetching water from a storage vessel to drink and, remaining one case involved bathing by a toddler sibling not supervised by elders. Studies from other countries have also reported bucket-associated drowning death [1,2] being a common problem, wherever buckets are used for water storage at home.

Due to the inherent limitations, it is assumed that our data is gross underestimation of actual data as drowning may happen in cases who did not get media coverage, rural/peripheries news not getting coverage in electronic media and news not getting media space. Duplication of data was avoided based on victims and geographical/temporal details. This analysis identifies one of the little recognized sources of drowning in infants and toddlers in home environment associated with buckets, which are used for water storage in almost every Indian household. Even if partially filled, it may pose significant drowning hazard to unattended children. This report raised an important issue of this health threat due to its ubiquitous use, and also reminds pediatricians for counselling for injury prevention at home.

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REFERENCES

1. Jumbelic MI, Chambliss M. Accidental toddler drowning in 5-gallon buckets. *JAMA*. 1990;263:1952-3.
2. Celis A. Home drowning among preschool age Mexican children. *Inj Prev*. 1997;3:252-6.
3. Sevilla-Godínez RE, Gómez-Lomelí ZM, Chávez-Ponce B, et al. Prevalence of risk factors for drowning at home related to the socioeconomic level [article in Mexican]. *Rev Med Inst Mex Seguro Soc*. 2010;48:645-52.
4. Talwar V, Sood N, Verma PK. Drowning in concentrated syrup. *Indian Pediatr*. 2009;46:352-3.
5. Bose A, George K, Joseph A. Drowning in childhood: a population based study. *Indian Pediatr*. 2000;37:80-3.
6. National Crime Records Bureau. Accidental deaths and suicide in India, 2020. Assessed April 1, 2022. Available from: <https://ncrb.gov.in/en/accidental-deaths-suicides-in-india>

Bolus Dose of Vitamin D to Lactating Mother and Calcium Transfer in Human Breastmilk

We read with interest the article by Ramot, et al. [1]. We compliment the authors for this study on bolus vitamin D supplementation to lactating mothers in improving maternal and infant vitamin D status. We would like to highlight certain aspects in the study, and request clarifications from the authors.

The use of bolus dose of vitamin D compared to daily dose may not be physiological. The Infant receives vitamin D in its parent form (vitamin D3) from breastmilk. Vitamin D3 is rapidly converted to 25(OH)vitamin-D, which cannot be secreted in the breast milk; therefore, daily dose of vitamin D to the mother is required to achieve sufficient transfer in breastmilk [2]. References cited by authors to substantiate bolus dose showed the levels of vitamin D in maternal blood and breastmilk dropped significantly after day 1 of bolus dose; however, these

were uniform when mothers were supplemented daily [3,4]. One of these studies was done in non-lactating mothers, where the physiology of vitamin D is significantly different [3]. The authors did not mention the time frame of collection of blood sample for vitamin D estimation after bolus dose. Non-availability of vitamin D levels in breastmilk further dilutes the conclusions of study.

The serum vitamin D levels were estimated using automated chemiluminescent immunoassay, which cannot differentiate between the two forms of vitamin D, 25(OH)vitamin-D2 and 25(OH)vitamin-D3, and has a cross reactivity with other vitamin D metabolites [5].

Lactating mothers increase calcium content of breastmilk by increasing the dietary intake, gut absorption, and bone resorption by parathyroid-related protein (PTHrP) [2]. Relation between maternal vitamin D and serum calcium is linear during vitamin D deficiency. In Table II and III of the study, maternal and infant serum calcium levels are significantly low at 1 year post-bolus of vitamin D supplementation compared to baseline,