Protocol for Infant Massage in Home Settings

Traditional infant care and child rearing practices are known to be important determinants of child health. While some practices are known to be beneficial or harmful, for some there is less scientific knowledge. Infant oil massage is highly prevalent traditional practice in India [1] and several developing countries [2]. Recent evidence suggests beneficial effects of topical application of vegetable oils in preterm infants in preventing invasive infections [3]. It is often administered in neonatal intensive care units for improved growth, hypothermia prevention and reduced hospital stay. Massage in term infants seems to improve physical and mental health; however, much remains to be known about this [4]. Although considerable variations exist in practice of infant massage at homes, which may affect potential for gain/harm, massage being a cultural practice is 'normalized' and seldom receives professional attention [1].

We recently conducted an e-Delphi study and developed a protocol for massage in healthy infants at homes [5]. The protocol provides a step-by-step guide for home care givers of infants born beyond 37 weeks of gestation. It details aspects such as when should massage be done or not, how to determine that the infant is fit for massage, how to ensure the environment and time is appropriate for massage, who should perform the infant massage, how often should massage be performed, what are the appropriate techniques for infant massage, and what are the recommended substances/appropriate oil for infant massage.

The seventeen experts involved in the three round Delphi study included neonatologists, general pediatricians, developmental pediatricians, pediatric occupational therapist, naturopathy expert, ayurvedic pediatricians and specialists in

First Aid Training to School Students: Should Younger Children Be Trained?

We read with interest the recent article by Mehreen, et al. [1] on the effectiveness of an educational school-based intervention on injury prevention and first aid. The educational intervention significantly increased the knowledge on the prevention of unintentional injuries and first aid among students (mean age 15.9 years) [1]. In order for first-aid to be effective, continuous training, practice and several trainees are required. Research has demonstrated the ability of children to provide first aid after receiving appropriate education [2]. Specialists or certified *Panchakarma* (includes massage therapy). The paper not only reports consensus but also non-consensus and stable disagreement that are informative and highlight differences in perspectives [5]. We feel that it would be a useful guide for academicians and clinicians for teaching and patient education, and as a standard protocol for use by researchers.

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REFERENCES

- Chaturvedi S, Randive B, Pathak A, et al. Prevalence and perceptions of infant massage in India: Study from Maharashtra and Madhya Pradesh states. BMC Pediatr. 2020;20:512.
- Salam RA, Das JK, Darmstadt GL, Bhutta ZA. Emollient therapy for preterm newborn infants–evidence from the developing world. BMC Public Health. 2013;13: S31.
- Cleminson J, McGuire W. Topical emollient for preventing infection in preterm infants. Cochrane Database Syst Rev. 2021;5:CD001150.
- Bennett C, Underdown A, Barlow J. Massage for promoting mental and physical health in typically developing infants under the age of six months. Cochrane Database Syst Rev. 2013;2013:CD005038.
- Chaturvedi S, Tillu G, Kale A, et al. Protocol for infant massage in home settings: An e-Delphi approach for consensus guidance integrating traditional wisdom with modern medicine. J Trop Pediatr. 2021;67:fmab043.

teachers are capable of teaching first aid and many countries have introduced first aid training programs in schools [3]. However, most programs including the present study, focus mainly on children aged 10-18 year, while younger ages receive much less attention [4]. We systematically reviewed the literature and found only three studies of first aid programs being delivered to children at preschool. Results showed that the interventions improved preschool students' knowledge and skills of first aid.

It is important to educate children from an early age. Early age training cultivates skills that are retained for almost a lifetime and can be easily retrieved from memory. Furthermore, young children function as multipliers because their knowledge is disseminated in the family and in their friend-circle. Finally, it cultivates social responsibility to the trainees, which is necessary for the progress of the society. We strongly believe that first aid training shall be included as part of basic education as a compulsory module, that can be taught by trained school teachers.

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Safety: A Primary Concern in Thalidomide Use in Thalassemia

I read with interest the article by Chandra, et al. [1] published in the journal recently. Authors have presented their data on the efficacy and safety of thalidomide in adolescents with transfusion dependent thalassemia (TDT). It is an excellent effort and much awaited publication keeping in view the quantum of thalassemia in India, the high cost of bone marrow transplant (BMT), and the scarce data on use of thalidomide in TDT. However, I would like to highlight a few issues in the study.

The primary concern with use of thalidomide in TDT remains safety rather than efficacy. A study period of six months is too short for a disease requiring long-term therapy with thalidomide. During a study of any new drug for a disease, the criteria for stoppage of trial are pre-defined for ensuring safety [2]. In their study, 8/37 developed infection with one death (due to unrelated causes), and 10/37 developed neutropenia (one severe grade-III neutropenia) and one grade-IV renal injury. Such a high incidence of neutropenia is unexplained by co-administration of deferiprone alone [3]. Considering the small sample size, continuing the trial despite severe adverse reactions may warrant more details.

The very low baseline mean hemoglobin F (HbF) and the steep rise in the study [1] is not supported by the literature. Mean baseline HbF levels were 2.95% and have risen to 49.2% after six months of thalidomide therapy. The baseline levels are generally higher (10-60%) in adolescents in the studies of HbF inducers in thalassemia [4]. Also in clinical studies, on an average, a 20% rise is seen in responders of HbF-inducer agents in thalassemia [5].

The baseline mean packed cell received in the study cohort was 75 mL/kg in last 6 months, which seems quite modest for adolescent children with thalassemia (12-18 years) as their requirement is high due to growth and pubertal spurt. Even the sample size calculation in the study was based on assumption of 220 mL/kg/year. Therefore, was there a selection bias as the cases were randomly enrolled?

REFERENCES

- Mehreen S, Mathur A, Jat J, Pathak A. Effectiveness of an educational school-based intervention on knowledge of unintentional injury prevention and first aid among students in Ujjain, India. Indian Pediatr. 2021;58:532-36.
- Semeraro F, Wingen S, Schroeder DC, et al. Kids Save Lives—Three years of implementation in Europe. Resuscitation. 2018;131;e9-e11.
- Lukas RP, Van Aken H, Mölhoff T, et al. Kids save lives: A six-year longitudinal study of schoolchildren learning cardiopulmonary resuscitation: Who should do the teaching and will the effects last? Resuscitation. 2016;101:35-40.
- Böttiger BW, Semeraro F, Altemeyer KH, et al. Kids Save Lives: School children education in resuscitation for Europe and the world. Eur J Anaesthesiol. 2017;34:792-96.

Presuming the mean hemoglobin (Hb) depicted in comparative table II are mean pre-transfusion Hb (not mentioned in methodology); mean Hb at baseline was 9.45 g/dL and at end of study was 8.89 g/dL. Were study children under-transfused during study period of 6 months? Also, mean thalidomide dose in baseline table I is 2.05 mg/kg/day, which is well below the mean daily dose of thalidomide in three response groups as depicted in Table III.

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REFERENCES

- Chandra J, Parakh N, Sidharth, et al. Efficacy and safety of thalidomide in patients with transfusion-dependent thalassemia. Indian Pediatr. 2021;58:611-6.
- World Health Organization. Clinical Trials. Accessed September 16, 2021. Available from: https://www.who.int/westernpacific/ health-topics/clinical-trials
- Naithani R, Chandra J, Sharma S. Safety of oral iron chelator deferiprone in young thalassaemics. Eur J Haematol. 2005;74:217-20.
- Ren Q, Zhou Y-L, Wang L, et al. Clinical trial on the effects of thalidomide on hemoglobin synthesis in patients with moderate thalassemia intermedia. Ann Hematol. 2018;97:1933-9.
- Musallam KM, Taher AT, Cappellini MD, Sankaran VG. Clinical experience with fetal hemoglobin induction therapy in patients with β-thalassemia. Blood. 2013;121:2199-212;quiz 2372.

REPLY

We are thankful to the reader for appreciating the need for developing drugs for thalassemia. The learned reader has reiterated the same safety issues which we had already mentioned in the last paragraph of our paper, including the need for larger studies addressing safety of thalidomide [1]. We restricted the study for 6 months on account of financial reasons.

As regards adverse effects (AEs), reader's attention is drawn to a recent study on another fetal haemoglobin (HbF) inducer– luspatercept. In this study, 96% patients had one or more AE with 29% having AE grade 3 or more, 15% having serious AE with