



Surveillance Highlights

Teething necklaces and bracelets pose significant danger to infants and toddlers

Farah Abdulsatar HBSc MD¹, Doreen Matsui MD FRCPC^{1,2}, Michael Miller PhD²,
Sepideh Taheri MBChB FRCPC^{1,2}

¹Department of Paediatrics, Western University, London, Ontario, Canada; ²Children's Health Research Institute, London, Ontario, Canada.

Correspondence: Dr. Sepideh Taheri, Department of paediatrics, London Health Science Centre, 800 Commissioners Rd East, London, Ontario, Canada, N6A 5W9. Telephone: 519 685 8500, Fax: 519 685 8156, E-mail: sepideh.taheri@lhsc.on.ca

CASE

The parents of a previously healthy 4-month-old boy were concerned about teething discomfort. One evening, he went to bed wearing an amber teething necklace for the first time with the purpose of relieving his discomfort. To their surprise, his parents found him in the morning with petechiae covering his face and neck—evidence of strangulation. He was taken to the local emergency department where the diagnosis was confirmed. Fortunately, the infant recovered without known sequelae (1).

LEARNING POINTS

- Amber or hazelwood necklaces and bracelets are currently marketed to parents of infants as remedies for teething pain (2–4). There is no scientific evidence to support the effectiveness of these necklaces and bracelets in relieving pain; moreover, they pose a significant safety risk.
- Case reports of children dying or experiencing serious suffocation accidents as a result of wearing teething necklaces have been published (1,5,6). Soudek et al. studied the mechanics of these necklaces and found that the clasps do not release easily, increasing the risk of strangulation (7).
- A previous survey conducted in a mid-sized Canadian city revealed widespread use of these necklaces, irrespective of maternal education or socioeconomic status. Out of the 130 families surveyed, 27% reported using an amber teething necklace, and 5% reported using a hazelwood teething necklace (which poses similar concerns of choking and strangulation risk as the amber necklace) (8). These results supported the need for further research into the use of teething necklaces and bracelets.
- The Canadian Paediatric Society (CPS) and the American Academy of Pediatrics share similar safety concerns with the

use of teething necklaces/bracelets and discourage the use of such products (9,10).

- Analysis of the Canadian Injury Reporting and Prevention Program database found two cases of injuries related to baby teething necklaces from 2011 to 2018. The type of the teething necklace in both of these cases was not confirmed (11).
- The Canadian Paediatric Surveillance Program (CPSP) issued a one-time survey designed to capture information on adverse events related to teething necklaces or bracelets in infants and young children in Canada. The survey also collected information on paediatricians' knowledge and attitudes regarding these products.
- The survey response rate was 36% (1,020 responses of 2,845 eligible participants). Paediatricians across Canada identified 10 cases of adverse events related to the use of teething necklaces and bracelets over the past 12 months, excluding duplicates (based on the first three digits of the postal code). Adverse events included swallowing the clasp magnet, strangulation by the necklace, choking on the beads, and contact dermatitis. These events resulted in hospitalization and medical procedures in some cases. None of these cases resulted in disability or death.
- Of the paediatricians who answered the survey, 77% were aware of teething necklaces or bracelets. Of these respondents, 91% were aware of risks associated with teething necklaces, such as choking or strangulation.
- Sixty-nine per cent of the surveyed paediatricians reported having seen an infant or a toddler in their practice wearing a teething necklace or bracelet over the past 12 months. Only 13% of the responding paediatricians had been approached by families with questions regarding the use of teething necklaces and bracelets over the past 12 months.
- Fifty-nine per cent of the surveyed paediatricians reported discussing the risks associated with teething necklaces and

bracelets with families who were using the product. Only 8% of the paediatricians discussed these products with all families.

- Findings of the CPSP survey will be shared with Health Canada to inform its efforts to reduce and/or eliminate the potential hazards associated with teething necklaces and bracelets.
- Paediatricians and other health care workers should advise families of the dangers associated with teething products, including education about the potential risks associated with their use, as a component of anticipatory guidance during routine health visits in infancy. Providing parents with alternative ideas such as those recommended by the CPS for helping their child with teething is strongly recommended (12).

Potential Conflicts of Interest

All authors: No reported conflicts of interest. All authors have submitted the ICMJE Form for Disclosure of Potential Conflicts of Interest. Conflicts that the editors consider relevant to the content of the manuscript have been disclosed.

References

1. Cox C, Petrie N, Hurley K. Infant strangulation from an amber teething necklace. *Can J Emerg Med* 2017;19(5): 400–3.
2. All about Amber. Baltic Amber Baby™. <<http://balticamberbaby.ca>> (Accessed October 10, 2015).
3. The Amber Education Room; Amber Teething Necklaces and Bracelets. Amber Artisans™. <<http://www.amberartisans.com/amtene4.html>> (Accessed October 29, 2015).
4. All About Hazel. Healing Hazel™. <<http://www.healinghazel.com/about-hazel/>> (Accessed December 13, 2015).
5. Mother Finds Daughter Nearly Strangled by Teething Necklace. Mail Online, 2017. <<http://www.dailymail.co.uk/news/article-2974043/Mother-s-panic-finding-little-girl-nearly-strangled-teething-necklace-officials-warn-popular-devices-potentially-deadly.html>> (Accessed February 27, 2017).
6. Toddler Dies After Choking on a Necklace During Nap Time at Daycare. Mail Online, 2017. <<http://www.dailymail.co.uk/news/article-3832605/Toddler-boy-dies-choking-necklace-nap-time-daycare-center-s-investigation.html>> (Accessed February 27, 2017).
7. Soudek L, McLaughlin R. Fad over fatality? The hazards of amber teething necklaces. *Paediatr Child Health* 2018;23(2):106–10.
8. Abdulsatar F, Miller M, Taheri S. Use of unsafe teething remedies in a mid-sized city. Canadian Paediatric Society Annual Conference, Quebec City, 2018 (Poster).
9. Amber Teething Necklaces: A Caution for Parents. American Academy of Pediatrics. <<https://www.healthychildren.org/English/ages-stages/baby/teething-tooth-care/Pages/Amber-Teething-Necklaces.aspx>> (Accessed December 12, 2015).
10. Keep Your Baby Safe. Caring for Kids. Canadian Paediatric Society, 2015. <http://www.caringforkids.cps.ca/handouts/keep_your_baby_safe> (Accessed December 12, 2015).
11. Canadian Hospitals Injury Reporting and Prevention Program (CHIRPP). <<https://www.canada.ca/en/public-health/services/injury-prevention/canadian-hospitals-injury-reporting-prevention-program.html>> (Accessed August 10, 2018).
12. Healthy Teeth for Children. Caring for Kids. Canadian Paediatric Society, 2018. <https://www.caringforkids.cps.ca/handouts/healthy_teeth_for_children> (Accessed August 9, 2018).