Opium intoxication in an infant on Indian folk medicine

Ira Shah

Address for correspondence:
Dr. Ira Shah, 240 D. Walkeshwar Road, Malabar Hill, Mumbai 400 006, India.
E-mail: irashah@pediatriconcall.com

Abstract

A 45-day-old boy presented with increased drowsiness for a day. His mother was giving the child a mixture of several herbs for the past 15 days for general well-being of the child. Urine analysis revealed the presence of opium and benzodiazepines in the child. On searching through the herbs, opium seeds were identified. The child recovered on his own and needed no antidote.

Key words: Children, folk medicine, opium, poisoning

INTRODUCTION

Opium has been used for symptomatic treatment of diarrhea, cough, fever, and as a general tonic for well-being by parents unintentionally in the form of folk remedy.[1-3] Doctors in the late eighteenth and nineteenth centuries found it invaluable in combating symptoms of cholera and tuberculosis (TB). Various patent medicines containing opiates were sold for teething babies.[4] This can lead to unintentional drug intoxication and even overdose. Sedation, myosis (pinpoint pupils), respiratory tract suppression, constipation, and confusion are common clinical symptoms of opium intoxication.[1] We present an infant with opium intoxication who was on several herbs given for general well-being.

CASE REPORT

A 45-day-old boy born of non-consanguineous marriage presented with cold for 2 days and drowsiness for 1 day. The mother had to wake up the child for breast feeds that he was taking and again going back to sleep. There is no fever, vomiting, or diarrhea. The child had been treated with cetirizine and xylometazoline for the cold. He was also on a mixture of several herbs for the past 15 days given for general well-being. He was a full-term child with a birth weight of 3 kg and had NICU stay for 5 days in view of septicemia. He is on exclusive breast feeds and achieved milestones up to age. He is immunized with BCG, DPT, and OPV. On examination, he was afebrile, had heart rate of 140/min, respiratory rate of 42/min, was drowsy but arousable. Pupils were pinpoint but reacting to light. Systemic examination was normal. His present weight was 3.3 kg, head circumference was 39 cm, and the total length was 54 cm. Investigations showed hemoglobin of 12.1 g/dl, total leucocyte count of 10,800/cumm (58% polymorphs, 42% lymphocytes), and platelets of 4,51,000/cumm. CRP was negative. Renal and liver function tests were normal. Blood sugar was 97 mg/dl. Serum ammonia was 188 μg/dl. Venous blood gas showed a pH of 7.32, with bicarbonate of 12.3 mmol/L and an anion gap of 33. Serum lactate was 26.6 IU/L and the urine test for ketones was negative. Serum pyruvate was 0.34 IU/L. Urine test for toxic screening showed the presence of benzodiazepines and opiates by an immunometric assay. There were no amphetamines, cocaine, and phenobarbitones in urine. CSF examination was normal. The child regained normal sensorium within 12 h, and blood gases normalized within 48 h of hospitalization. The mother was asked to show the herbs that she was giving the children, which are depicted in Figure 1. One herb was the opium seed. Since the child...
was alright within 12 h, naloxone was not administered. Parents were advised discontinuation of these herbs.

DISCUSSION

Most of the poisoning cases in young children are unintentional and in many cases their parents or guardians play a critical role in their intoxication. Opium has been reported to be the most important cause of poisoning in children <3 years of age. Opium over dosage has a high lethality rate of about 40%. In India, various folk medicines, such as ghasa, balkadu, etc., have been suspected to contain opium and administration of these has been a practice for years together. Elders cite reasons for administering as diarrhea, indigestion, irritability, constipation, and as a build-up tonic. However, intoxication can lead to sedation, pinpoint pupils, apnea, and even death. In our patient, the presence of pinpoint pupils and drowsiness made us suspect opium intoxication, which was confirmed by urine analysis. Though opium poisoning was reported in the 1970s and 1980s it was subsequently not seen due to perhaps awareness and proper counseling. However, nonproprietary medicine intake still remains high and drug intoxication will still remain a problem in infants. In fact, in the early eighteenth century in Britain, various concoctions of opium were expressly designed for the purpose of quieting unruly children. With industrial revolution, 18 h workdays, extra cost in feeding and loss of sleep due to infant’s cries, a mixture of opium and treacle was a particularly a boon to the mothers. This stands true even today.

Treatment of opium intoxication consists of gastric lavage, naloxone, and even mechanical ventilation in the case of respiratory failure. Our patient did not require these interventions as he improved in next 12 h.

Thus to conclude, use of nonproprietary formulations, folk remedies, and herbs should be given with caution as the composition is not known and can lead to intoxication, adverse effects, and even death.

REFERENCES

1. Cheraghali F, Taymori M. Epidemiological study of drug intoxication in children. Acta Med Iran 2006;44:37-40.
2. Sharma P, Gupta BD, Kshirsagar N, Meena KK, Arora V, Sharma G. Safety of Ghasa. Indian Pediatr 1999;36:201-2.
3. Imran M, Uppal TB. Opium administration to infants in Peshawar region of Pakistan. Bull Narc 1979;31:69-75.
4. Amazon: In the Arms of Morphens: The Tragic History of Laudanum, Morphine and Patent Medicines. Available from: http://www.amazon.com/exec/obidos/tq/detail/-/155297538X. [Last accessed on 2011 Nov 30].
5. Yang CC, Wu JF, Ong HC, Kuo YP, Deng JK, Ger J. Children poisoning in Taiwan. Indian J Pediatr 1997;64:469-83.
6. Dash HH, Qader A. Tincture opium poisoning in a neonate. Indian Pediatr 1988;25:904-5.
7. Trinh-Thi-Minh-HA, Nguyen-Hoc-Huong-Thu. Opium Poisoning in Vietnamese infants. South East Asian J Trop Med Public Health 1973;4:593-5.
8. History House: Opium is the Opiate of the Masses. Available from: http://www.historyhouse.com/in_history/caffeine [Last accessed on 2011 Nov 30].

How to cite this article: Shah I. Opium intoxication in an infant on Indian folk medicine. J Nat Sc Biol Med 2012;3:201-2.

Source of Support: Nil. Conflict of Interest: None declared.