

Cotoneaster and Neonatal Jaundice

ANIRBAN MANDAL¹, AMITABH SINGH², BHAVIKA RISHI³, PUNEET KAUR SAHI⁴**Keywords:** Phototherapy, Poisoning, Serum bilirubin

Dear Editor,

We read with great interest the, the article titled 'Cotoneaster: A Safe and Easy Way to Reduce Neonatal Jaundice' by Rafeiean-Kopaei et al., [1] in the April 2016 issue of your journal. At first we would like to commend the authors for their endeavor in finding newer alternative/ adjunct to phototherapy in management of neonatal hyperbilirubinemia, but also have the following comments to offer:

1. The safety of cotoneaster in children, especially neonates is questionable as it has been described to cause poisoning in children [2]. Therefore, the use of such agent always warrants caution.
2. The authors did not mention what type of non-probability sampling (convenience, purposive, judgmental, etc.) was used, what was the basis of allocation, randomization was done or not, allocation concealment and blinding.
3. The aim is appropriately stated but the objectives are not clear and it doesn't reflect whether it was a superiority, non-inferiority or equivalence study.
4. It is mentioned that the infants at inclusion were 2-23-day-old and their total serum bilirubin was 14-20mg/dl. First, it is very unusual for otherwise healthy, term, normal birth weight, newborn infants (as evident from the exclusion criteria) to present with jaundice requiring phototherapy as late as 23 days! Second, the American Academy of Paediatrics (AAP) guidelines [3] also provide cut-off bilirubin values of 21 mg/dl for phototherapy beyond 5 days of age. So, whether few newborns were subjected to phototherapy unnecessarily.
5. The author's also state that duration of phototherapy was "at least 4 days". So, whether these newborns were given phototherapy for 4 days irrespective of their serum bilirubin values! But as per the widely accepted AAP Guidelines [3] the duration of phototherapy is decided based upon the serum bilirubin values and most of the term, normal birth weight babies without any risk factors (e.g. sepsis, blood group incompatibility, cephalohematoma, etc.) are not expected to require phototherapy for such a long duration. So, exposing these neonates to unnecessary phototherapy and simultaneously prolonging their hospital stay cannot be justified. On the other side, had the authors used the AAP guidelines for deciding on starting

and stopping phototherapy then duration of phototherapy required by the infants with jaundice would have served as a very important clinically useful outcome measure of the study.

6. The amount of blood drawn from the newborn infants and the details of the method employed for estimation of serum bilirubin (the principle outcome measure) is not clearly stated. This is of immense importance as the serum bilirubin values are known to defer depending on the method of estimation and also among the different laboratories [4].

7. No information regarding the concentration of the cotoneaster drops preparation administered to the newborns and their mothers is provided. As the dosage administered was same for all newborns, the medication received (per kg body weight) would change depending on the weight of the newborn.

8. The author's state that the mean duration of hospitalization was 35.3±15 hours in the 'treatment group', and it was significantly lower ($p < 0.001$) than the 'control group' (70±21.2 hours). Here the treatment and control group compared by the authors are not clear as the study had four groups.

9. There is no mention about the adverse effects of the phototherapy observed in the studied population as it was one of the co-intervention. There is also no data about attrition rates and failure of therapy (phototherapy ± cotoneaster) requiring exchange blood transfusion in any group.

10. The author's also did not mention whether informed written consent was obtained from all the patient and guardians.

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PARTICULARS OF CONTRIBUTORS:

1. Attending Consultant, Department of Paediatrics, Sitaram Bhartia Institute of Science and Research, New Delhi, India.
2. Assistant Professor, Department of Paediatrics, Chacha Nehru Bal Chikitsalaya, New Delhi, India.
3. Senior Resident, Department of Pathology, Lady Harding Medical College, New Delhi, India.
4. Senior Resident, Department of Paediatrics, Kalawati Saran Children's Hospital, New Delhi, India.

NAME, ADDRESS, E-MAIL ID OF THE CORRESPONDING AUTHOR:

Dr. Amitabh Singh,
Chacha Nehru Bal Chikitsalaya, Geeta Colony, New Delhi-110031, India.
E-mail: dramit_amy@yahoo.co.in

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