

**RESEARCH LETTER**

Poisoning by Oral Ingestion of Wild Berries

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Five children between the age of 8 and 16 years were admitted to the emergency ward of SMHS Hospital Srinagar in convulsing state after the consumption of wild berries in the central district of Budgam in the Kashmir Valley. The children had reportedly consumed the berries about one and a half hour back prior to their hospitalization. They had started with giddiness, nausea and vomiting initially and later on developed frank generalized tonic clonic seizures with incontinence of urine and faeces. There was no history of loose motions, abdominal pain, haemetemesis, hematuria, chest pain or breathlessness. The patients were immediately put on a loading dose of phenytoin intravenously (20 mg/kg body weight) and blood samples were drawn for investigations and to ascertain the nature of the poison. All investigations including CBC, ESR, Urine analysis, Blood sugar, KFT and Electrolytes were normal. Liver function tests except ALP were normal. ALP showed a three-fold rise in all the children. Chest X-ray, ECG and Ultrasound examination of the abdomen were normal. The patients responded to IV phenytoin and seizures stopped. Patients were subsequently put on oral phenytoin 4-8 mg/kg which was gradually tapered off over a period of two weeks. ALP, which was initially raised, normalized after three weeks. Children were regularly followed and did not develop any further episode of seizures. The nature of the poison could not be established from the blood samples analyzed. Samples of the wild berries were procured and sent for identifying the toxin responsible for the clinical manifestations.

Accidental poisoning in children is not uncommon and has been enlisted as one of the medical emergencies(4). The causes of poisoning vary in different countries and between the rural and urban population. In children the major factors involved in accidental poisoning are the inexperienced child, an unsafe environment, ignorance of the parents and impulsive attitude of the child to try & seek new things. The incidence of accidental poisoning varies widely ranging from 0.33% to 7.64% (5-6). Poisoning in

children can occur by accidental ingestion of kerosene, chemicals, pesticides, poisonous seeds, corrosives & plant poisons with varying frequency. Accidental ingestion of plant poisons has been well known and the plants incriminated are datura, castor seeds etc(6, 7). Samples of the wild berries procured were found to belong to a bushy plant *Coriaria Napelensis* Wall of the Family *Coriariaceae* an exotic angiospermus grown as an ornamental in Kashmir. Since the plant is cultivated for its ornamental character & has tasty fruits there is a high chance of poisoning especially in children. The identifiable toxin is TANNIN, which is found in high concentration (20%) in leaves & a still higher concentration in the fruit. Tannin is a neurotoxin and is poisonous in large doses.(8) This kind of neurotoxin found in these wild berries has so far not been reported in literature. The clinical manifestations of the toxin consisted mainly of nausea, vomiting, giddiness and generalized tonic clonic convulsions in our patients. They were managed along the lines of status epilepticus besides supportive treatment. All of them recovered fully and showed no complications on follow up.

References

1. Basu D . The profile of acute poisoning in a teaching hospital at Calcutta. *J Ass Phy India* 1999; 47(1): 61.
2. Malik G M, Romshoo G J, Mubarik M *et al.* Increasing incidence of Organophosphorus Poisoning in the Kashmir Valley. *JK Pract* . 1998; 5 (2): 117-120
3. Khan G Q, Romshoo G J, Hassan G *et al.* Profile of acute poisoning in the turmoil affected Kashmir Valley. *J Ass Phy India* 2001; 49 : 192.
4. Sitaram S, Sharma U, Saxena S . Accidental Poisoning in Children. *Indian Pediatrics* 1985; 22: 757-760.
5. Satpathy R, Das BB. Accidental Poisoning in Childhood. *J Indian Med Assoc* 1979; 73: 190-192.
6. Buhariwalla RJ, Sanjanwalla . Poisoning in Children. A study of 303 cases. *Indian Pediatrics* 1969; 6: 141-145.
7. Buch NA, Kaiser A, Sethi AS. Poisoning in Children. *Indian Pediatrics* 1991; 28: 521-524.
8. Anonymous. *Wealth of India* Vol. 1, 1948, CSIR New Delhi.

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