

# Extrapontine Myelinolysis with Hyponatremia in an Infant: A Case Illustration

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## Introduction

Central pontine myelinolysis is the typical osmotic dymyelination syndrome and characterized by hemorrhage and axonal injury in the pons. A more rare variant of this disease is extrapontine myelinolysis and can present with multifocal intraparenchymal hemorrhage. Extrapontine myelinolysis has only been reported in a handful of cases (1,2).

## Methods

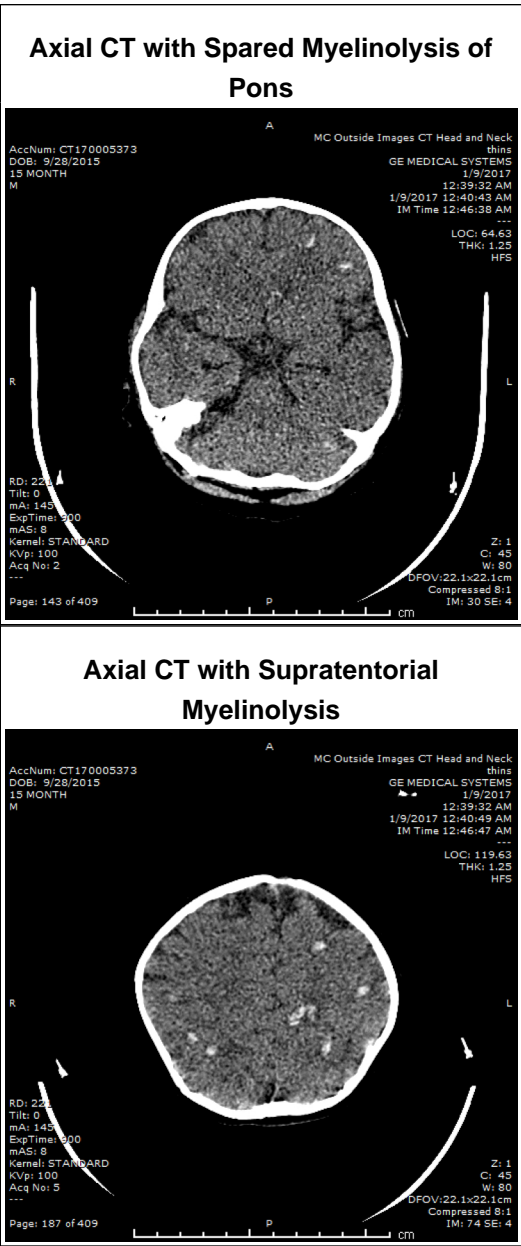
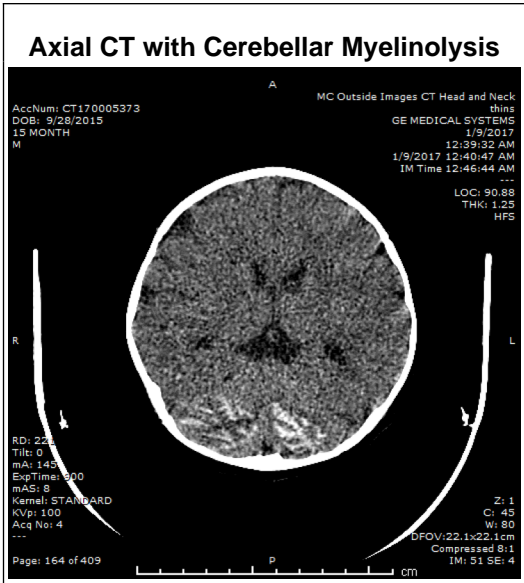
We present a 15-month-old boy with Down syndrome who was found to have multifocal intracranial hemorrhage upon admission.

## Results

The patient experienced two days of decreased oral intake and vomiting prior to admission. Upon admission he would not open eyes and would withdrawal to stimulation. Admission sodium was 220. The patient died later on admission day due to cardiovascular collapse. Autopsy was consistent with extrapontine myelinolysis.

## Conclusions

This is the fifth published case of pediatric EPM due to hyponatremia and the highest admission sodium out of the series. It is important to be aware of this disease entity as an etiology for intracranial hemorrhage and emphasize careful correction of osmotic derangements.



## References

- 1.Brown WD, Caruso JM. Extrapontine myelinolysis with involvement of the hippocampus in three children with severe hyponatremia. J Child Neurol 14: 428-33, 1999.
- 2.Aoki R, Morimoto T, Takahashi Y, Saito H, Fuchigami T, Takahashi S. Extrapontine myelinolysis associated with severe hyponatremia in infancy. Pediatr Int 58: 936-9, 2016.

## Learning Objectives

Participants should be able to describe the importance of hypovolemia and hyponatremia in the pediatric patient. They should also be able to recognize this disease entity radiographically as well as safely treat the underlying etiology.