Bismuth encephalopathy is a rare manifestation of bismuth toxicity characterized by progressive confusion, myoclonus, astasia-abasia, dysarthria, and/or neurologic findings such as hallucinations, paresthesias, and seizures.

A detailed toxicological history is important for all patients with altered mental status (AMS) since both medical and toxicologic illnesses can occur concurrently. The history should be attempted for all patients with altered mental status. A detailed toxicological history is important for all patients with altered mental status (AMS) since both medical and toxicologic illnesses can occur simultaneously. The manufacturer recommends no more than 2 days of bismuth therapy.

BACKGROUND
- Bismuth encephalopathy is a rare manifestation of bismuth toxicity characterized by progressive confusion, myoclonus, astasia-abasia, dysarthria, and/or neurologic findings such as hallucinations, paresthesias, and seizures.

CASE PRESENTATION
- A 74 year old female with a history of colitis and hyperlipidemia was sent from a nursing facility for urinary tract infection (UTI) and hyperactivity, inappropriate behavior, orientation only to self, resting tremors, myoclonus, ataxia, and choreatic movements.
- She was admitted for urinary tract infection (UTI) and hypernatremia.
- She was admitted for urinary tract infection (UTI) and hypernatremia.
- On day 4 of admission, her electrolytes and renal parameters had normalized. A repeat bismuth concentration was 327 mcg/L (ref <50 mcg/L). We recommended supportive care and cessation of bismuth compound use.
- Her initial blood bismuth concentration was 327 mcg/L (ref <50 mcg/L). We recommended supportive care and cessation of bismuth compound use.
- On day 9 of hospitalization she was alert but still mildly confused and tremulous. She was transferred back to her nursing facility with hypernatremia.
- On day 9 of hospitalization she was alert but still mildly confused and tremulous. She was transferred back to her nursing facility with hypernatremia.
- Her initial blood bismuth concentration was 327 mcg/L (ref <50 mcg/L). We recommended supportive care and cessation of bismuth compound use.

PEPTO BISMOL PACKAGING

DISCUSSION
- A detailed toxicological history is important for all patients with altered mental status (AMS) since both medical and toxicologic illnesses can occur simultaneously.
- The history of 4 years of daily therapeutic doses of bismuth subsalicylate and her persistent neurological findings despite resolution of hypernatremia and antibiotics increased the suspicion for bismuth encephalopathy.
- The manufacturer recommends no more than 2 days of bismuth therapy.
- Background blood concentrations of bismuth in the general population are <50 mcg/L, however absolute concentrations correlate poorly with morbidity.
- We did not recommend chelator therapy in this patient but prior cases report use of BAL, DMPs, succimer, and D-penicillamine and with arguable efficacy.
- There are several other case reports of bismuth toxicity in patients with a history of chronic colitis who were self-treating with bismuth subsalicylate. Her history of chronic colitis may have predisposed her to becoming bismuth toxic.

CONCLUSIONS
- The signs and symptoms in this case correlated significantly with bismuth encephalopathy but were confounded by a UTI and hypernatremia.
- Toxicologic illness can occur concurrently with, and be masked by, overt medical illness. A detailed toxicologic history should be attempted for all patients with altered mental status.
- Chronic colitis patients may be at higher risk for developing bismuth toxicity.

REFERENCES