

Lead poisoning due to herbal remedies for infertility: A case report

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ABSTRACT

Lead poisoning remains a major public health problem due to lack of awareness of its ill effects among the clinical community. The non-availability of information on lead levels at primary health centers results in many lead poisoning cases being treated symptomatically, without the diagnosis being sought. We report a case that presented with abdominal pain and vomiting which eventually turned out to be due to lead poisoning secondary to herbal medicine taken as treatment for infertility.

Key words: lead poisoning, herbal medicine, infertility

INTRODUCTION

Lead poisoning is one of the largest environmental medicine problems in terms of the number of people exposed and in the public health toll it takes¹. Exposure occurs through ingestion, inhalation or occasional skin contact. Lead is also incorporated in herbal medicines and can lead to acute or chronic poisoning depending on duration and severity of exposure. We report here a case of a patient who presented with symptoms of acute abdomen, which later turned out to be due to lead poisoning secondary to herbal medicine used for treating infertility.

CASE REPORT

A 27 year old male was referred with a provisional diagnosis of sub acute intestinal obstruction. He presented with severe abdominal pain and vomiting of eight days' duration. The abdominal pain was severe, generalized, of colicky type, non-radiating and associated with vomiting. The pain did not relieve with proton pump inhibitors or analgesics. Vomiting was about three to four times per day, non projectile and not associated with haemetemesis or malaena and vomitus was greenish in color. He also gave a history of constipation. He was not a known diabetic or hypertensive. He denied history of smoking or alcohol

consumption. There was no history of drug abuse. He was married for nine years but had fathered no children. On examination he looked depressed and was in pain. His blood pressure was 140/90mmHg, pulse 87/min, and temperature 37.9C. The abdomen was soft and non-tender, with no guarding or rigidity, but the bowel sounds were sluggish. The cardiovascular, respiratory and neurological examination was unremarkable. The renal functions, electrolytes, and serum amylase were normal, and hemoglobin was 106g/l with MCV of 75fl (76-96). The total and differential counts were normal. The Coombs test, urine routine and serum haptoglobin were normal. Abdominal x-ray erect and supine were normal, and ultrasound abdomen was unremarkable. Their on studies and b12 levels were normal.

The patient was started on supportive treatment and was re-interviewed for his unexplained microcytic anemia with normal serum iron level and the severe abdominal pain. The patient admitted that he was taking kushtha, a traditional preparation with heavy metal compounds, for his infertility problem and that the symptoms had started after the third dose of the medicine. Lead poisoning was suspected, and a peripheral smear

showed microcytic hypochromic anemia with anisocytosis, poilocytosis and a marked number of red blood cells showing basophilic stippling. As the patient had no neurological symptoms and as all his symptoms resolved within a week of his stay in hospital no chelation therapy was started. He was discharged in healthy condition with advice on herbal preparations containing heavy metals and their hazards. In the report received later from the referral centre, his serum lead level was 705 mcg/l (normal range <400 mcg/l). The patient was followed up by phone and did not show any residual effects of lead poisoning.

DISCUSSION

Lead poisoning remains a major public health problem due to lack of awareness of its ill effects among the clinical community. The non-availability of facilities for assessing lead levels at primary health centers results in many lead poisoning cases being treated symptomatically, without the diagnosis being sought².

Symptoms of lead poisoning are related to various systems. They can be acute or chronic. The patient may present with abdominal pain, arthralgia, muscle stiffness, anorexia, weight loss, tiredness, lethargy, insomnia, headache, peripheral neuritis, convulsions, delirium tremens, coma, renal failure, hypertension, alteration of libido, encephalopathy, and psychological and behavioral changes^{1,3-5}.

In adults, occupational exposure is the main cause of lead poisoning. People may get exposed to it when working in facilities that produce a variety of lead-containing products; these include radiation shields, ammunition, surgical equipment, fetal monitors, plumbing, circuit boards, jet engines, and ceramic glazes. Lead is commonly incorporated into herbal remedies such as Indian ayurvedic preparations and remedies of Chinese origin⁶⁻⁷.

CONCLUSION

The clinician needs to develop a high index of suspicion of lead poisoning as a possible cause of unexplained abdominal pain. As the patient most often hesitates in giving a history of consumption of herbal medicines for infertility and as serum lead level assessment facilities are not available in the primary health centre, lead poisoning is easily missed.

REFERENCES

1. Mark AP, Michelle RK. Lead poisoning: Using transdisciplinary approach to solve ancient problem (article). *Ecohealth* 2008;5:379-85.
2. Geraldine M, Herman DS, Venkatesh T. Lead poisoning as a result of infertility treatment using herbal remedies (case report). *Arch Gynecol Obstet* 2007;275:279-81 .
3. Begovic V, Nozic D, Kupresanin S, et al. Extreme gastric dilatation caused by chronic lead poisoning. *World J Gastroenterol* 2008;14:2599-2601.
4. Hernberg S. Lead poisoning in historic perspective. *Am J Ind Med* 2000; 38:244-54
5. Mayer PA, Brown MJ, Falk H. Global approach to reducing lead exposure and poisoning. *Mutat Res* 2008;659:166-75.
6. Needleman H. Lead poisoning. *Annu Rev Med* 2004;55:209-22.
7. Surya K, Robert BS, Stephanos NK. Lead encephalopathy due to traditional medicines. *Curr Drug Saf* 2008; 3:54-59.