

LEAD POISONING DUE TO HERBAL REMEDIES FOR INFERTILITY

Mohammed Khalid, Tariq Karim

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 lead levels at primary health centers results in many lead poisoning cases being treated symptomatically, without the diagnosis being sought. We hereby present a patient who presented with abdominal pain and vomiting which eventually turned out to be lead poisoning secondary to herbal medicine for infertility

Keywords: Lead poisoning, herbal medicine

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INTRODUCTION

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

CASE REPORT

A 27 year old gentleman from Pakistan was referred to our hospital with a provisional diagnosis of sub-acute intestinal obstruction. He presented with severe abdominal pain and vomiting of 8 days duration. The abdominal pain was severe, generalized colicky type, non radiating associated with vomiting. The pain did not relieve with proton pump inhibitors or analgesics. Vomiting was about three to four times per day greenish in color non projectile not associated with haemetemesis or malaena. He also gave history of constipation. He was not a known diabetic or hypertensive. He denied history of smoking or alcohol consumption. No history of

drug abuse. He has been working in Grocery shop for last 2 years. He was married for nine years but had fathered no children. The patient looked pale, was depressed and in pain at the time of examination. His blood pressure was 140/90mmHg, pulse 87/min, temp-37.9C. On abdominal examination, abdomen was soft, non-tender, no guarding or rigidity but the bowel sounds were sluggish. The cardiovascular, respiratory and neurological examination was unremarkable. The renal functions, tests serum level, electrolytes, 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 was normal. The abdominal x-ray erect and supine was normal, and ultrasound abdomen was unremarkable. Serum iron and Vitamin B12 levels were normal. He was started on supportive treatment and was re-interviewed for his unexplained microcytic anemia with normal serum iron level and severe abdominal pain. The patient admitted that he was taking kushtha (heavy metal compounds) which was brought for him from Pakistan for his infertility problem and the symptoms started after third dose of the medicine. Lead poisoning was suspected and peripheral smear sent. His peripheral smear showed microcytic hypo chromic anemia with anisocytosis, poilocytosis and marked number of red blood cells showed basophilic stippling. As the patient had no neurological symptoms and he showed resolution of all his symptoms within a week of his stay in hospital no chelation therapy was started. As serum lead level was not available immediately to guide he was discharged in healthy condition with advice

Correspondence: Dr Mohammed Khalid, Department of internal medicine, GMC Hospital, Ajman, UAE: Tel no-0508384199: Email- mkhalid792000@yahoo.co.in

about herbal preparations containing heavy metals and their hazards. His serum lead level received later from referral centre was 70.5 mcg/dl (normal range 0 to 10 mcg/dl). Patient was followed up by phone and did not show any residual effects of lead poisoning. The patient was not exposed to other sources of lead poisoning like auto batteries, lead crystals, ceramics, lead paint or lead pipe. The drinking water which he was consuming seemed to be normal as his coworkers were asymptomatic and as withdrawal of kushta had shown improvement in symptoms with no recurrence of symptoms. In summary, this young gentleman presented with symptoms of acute abdominal pain, vomiting, constipation and history of consuming three doses kushta (heavy metal compound) over a short period. The investigations revealed anemia with basophilic stippling, elevated serum lead levels and symptoms improved without recurrence after stopping kushta. Hence, the final diagnosis of acute lead poisoning was considered.

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 lead levels at primary health centers results in many lead poisoning cases being treated symptomatically, without the diagnosis being sought². In our case, which initially mimicked sub acute intestinal obstruction, if lead poisoning was not suspected, the patient could have undergone unnecessary procedures and even laparotomy, thereby increasing the morbidity.

Symptoms of lead poisoning are related to various systems. It can be acute or chronic. Patient can 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, psychological and behavioral changes^{3,4,5}.

In adults, occupational exposure is the main cause of lead poisoning. People can be exposed when working in facilities that produce a variety of lead-containing products; these include radiation shields, ammunition, certain 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 origin^{6,7}.

Herbal medicine usage can be traced back as far as ancient Egypt, China, India and Sumeria. Many patients consider natural herbal remedies to be completely free of side effects which is a matter of concern herbal medium can lead to severe toxicity or drug interaction⁸.

Kushta is folk remedy used by Indian and Pakistani people and has the potential to cause lead poisoning due to its relatively high content of lead⁹. Normal range of lead content in blood is 0 to 10mcg/dL (0 to 100mcg/L). Whole blood lead levels <10mcg/dL are considered non toxic. Levels between 10 and 25 mcg/dl is associated with impaired neurobehavioural development in children¹⁰. Levels of 25 to 50 mcg/dl may be associated with headache and irritability and more than 70mcg/dl are associated with severe poisoning¹⁰.

CONCLUSION

Clinician need to develop high index of suspicion for lead poisoning as possible cause of unexplained abdominal pain. As patient most often hesitate in giving history of consumption of herbal medicine for infertility together with non availability of serum lead level in primary health centre, lead poisoning is easily missed.

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