Case Report

IMAGING FEATURES IN BOTTLE GOUDRPOISONING – A CASE REPORT
Dr. SS Patil, Dr. ST Ambardekar, Dr. DV Salunkhe, Dr. SB Verghese

Authors

Dr. Sachin Shridhar Patil, DNB, DMRD, Department Of Radio-diagnosis, PDYP Medical College, Pimpri, Pune & Niramaya Hospital, Chinchwad, Pune

Dr. Shrikant T. Ambardekar, MD, Department Of Radio-diagnosis, Niramaya Hospital, Chinchwad, Pune

Dr. Deepak V. Salunkhe, MD, Department of Internal Medicine and Intensive care, Niramaya Hospital, Chinchwad, Pune

Dr. Sunitha Binu Verghese, DNB, Department of Internal Medicine and Intensive care, Niramaya Hospital, Chinchwad, Pune

Number of pages: Three

Number of photographs: Four

Number of Tables: Nil

Address of correspondence: Dr. Sachin Shridhar Patil
F-2, Harsh Vihar, Nagras Road, Aundh, Pune, Maharashtra State, India
9860111717, 020-25881055 (R), 020-2760777 Ext-749, 727 (Niramaya Hospital)
drpatilsachin@gmail.com
Case Report

IMAGING FEATURES IN BOTTLE GOURD POISONING – A Case Report
Dr. SS Patil, Dr. ST Ambardekar, Dr. DV Salunkhe, Dr. SB Verghese

Abstract:

Bottle gourd is consumed in various forms worldwide. Toxins can sometimes develop in the bottle gourd fruit. Consumption of such toxic bottle gourd fruit in any form can be dangerous. Radiological features of this are not mentioned in the published literature. Here we present a case of bottle gourd poisoning with its radiological features.

Key words: Bottle gourd, Cucurbitacin, CT scan, Bowel wall oedema

Clinical Summary:

A 50 Yrs male presented with haematemesis and abdominal pain. He was a known case of hypertension, acid-peptic disease. On examination the extremities were cold with weak pulses.

Pathological and Radiological Findings:

Routine lab investigations done on emergency basis revealed –Haemoglobin - 23.9 gm % (Hematocrit 60.3 %) Total leucocyte count – 24600/cumm, Platelets- 3.24/m/cc, Serum creatinine -1.3mg%, Bleeding time 2min 30 sec; Clotting time- 4min; Prothrombin time – 45sec/15sec / International Normalized Ratio (INR)- 3, Activated partial thromboplastin time- 55 Sec. Liver Function Test - Bilirubin 1.5 mg%, Alanine aminotransferase – 214IU/L, Aspartate aminotransferase- 280IU/L, Serum alkaline phosphatase -224IU/L, Serum albumin-3gm%. HIV antibodies - Negative.

Bed side sonography was done on emergency basis which showed mild oedema of transverse colon and a small bowel loop on left side which was thought to be a jejunal loop. No free fluid or nodes were seen. Considering these findings possibility of ischemic bowel was raised. For further evaluation of these findings Computed Tomography (CT) scan was recommended.

Two hours after the sonography patient had malena with passage of voluminous clots. This again raised the suspicion of bowel ischemia.

The vitals were stabilized by supportive (Inotropic and hematological support) treatment and patient was sent for abdominal CT scan.

The CT scan of abdomen showed a large segment of oedematous jejunal loop extending from D-J flexure downwards. The Superior mesenteric vein in the distal portion was partially filling but this was viewed suspicious as a flow related finding. The CT scan findings were thought to be suspicious of ischemic bowel.

Management and outcome:

Patient was treated with heparin followed by oral anticoagulation along with antibiotics and IV fluids. A follow up bed side USG after two days revealed significant reduction in bowel wall oedema. No ascites or nodes were seen.

Patient improved dramatically in couple of days and was discharged subsequently. In view of radiological findings, lab reports and clinical history a strong possibility of ischemic bowel was raised and the patient was treated accordingly however, the response alarmed us to go for more clinical history. After prolonged interview with patient he revealed that he was
habitual drinker of bottle gourd juice. One hour prior to episode of haematemesis he had a glass of bottle gourd juice which was bitterer than routine.

**Image 1:** Edematous small bowel loop (arrow). Note absence of free fluid or air.

**Image 2:** Edematous small bowel loop (arrow). Note absence of fat edema around.

**Image 3:** Edematous small bowel loop (arrow). Note well enhancing SMA (block arrow).

**Image 4:** Edematous small bowel loop (arrow). Block arrow shows enhancing mesenteric vessels.

**Discussion:**

Alternative medicine and consumption of functional or medical food has emerged as current trend in developed as well as developing countries. Changing life style has attributed to this. More and more people now consume medicinal fruits and vegetables in various forms. Sometimes toxins develop in to these fruits or vegetables and in that case consumption of such fruits or vegetables becomes dangerous.

Consumption of fresh Bottle gourd (Lagenaria siceraria) juice is a known such practice in India as this has proved to have hypolipidemic and antihyperlipidemic effects. Bottle gourd belongs to cucurbite family. Fruits and vegetables like cucumber, squash, melon, pumpkins, zucchini and gourd are included in this family. The toxicity of these plants is attributed to the toxin cucurbitacin. This is a tetracyclic triterpenoid compound and gives bitterness in these vegetables and fruits.

This toxin is known to have cytotoxic and carcinostatic properties and is known to cause kidney dysfunction and haemoconcentration in animals. Human poisoning is known but their radiological findings are not mentioned yet in any of these articles.
USG and CT scan showed diffuse oedema of small bowel and large bowel. No free peritoneal or pleural fluid was seen. No obvious mesenteric fat oedema was seen. No obvious thrombus was seen in the mesenteric and portal vessels.

Ischemic bowel and entero-colitis are common causes of bowel wall edema and in this case considering age and presentation of the patient the features were thought to be mimicking bowel ischaemia.

The points that were going against bowel ischaemia or entero-colitis were - absence of free peritoneal or pleural fluid, no obvious mesenteric fat oedema and no obvious thrombus in the mesenteric and portal vessels.

Possibility of poisoning should be kept in mind whenever, a patient who presents with bowel wall oedema without mesenteric vascular thrombosis.

References: