

WELCOME



A Case Of Sugar Poisoning



Sugar Poisoning Admitted In The Rajshahi Medical College Hospital

Abu Shahin Mohammed Mahbubur Rahman¹,
Md. Emdadul Haque²,
Md. Zahirul Haque³,
Md. Khalilur Rahman⁴,

Introduction

No published data or any article regarding sugar poisoning or toxicities are available. In literature review we didn't find such type of toxicity or poisoning.

We found a very interesting case of sugar poisoning in Rajshahi Medical College Hospital. Patient took about 1 kg sugar and survived luckily.

Case summary

Mr.Mozahar ,30years,married, farmer, non smoker, normotensive, non diabetic hailing from Puthia, Rajshahi got admitted to Medicine department of Rajshahi Medical College hospital on 26.10.17 with the complaints of nausea ,abdominal discomfort and vomiting for 4 hours and loss of consciousness for 1 hour.

Case summary

According to the statement of the attendant of the patient, he was reasonably well 5 hours back. Then he ingested about 1 kg sugar. He took that amount of sugar after betting with his friend. After taking that amount of sugar he had been suffering from nausea, abdominal discomfort and several episodes of vomiting. vomiting was painless, small in volume, contains partially digested food particle but there was no blood or bile.

Case summary

Thereafter he felt unwell followed by unconsciousness. There was no history of headache, fever, photophobia, neck rigidity, palpitation, dizziness, cough, visual abnormality, tremor, heat or cold intolerance, sweating, ingestion of drugs, head injury and seizure disorder. His urine output was normal.

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Case summary

There was no significant past illness, He has one son and one daughter .His parents are healthy and enjoying good health. He is from a lower middle class family .He did not give any significant drug history.He drinks arsenic free tube well water and uses sanitary latrine. He is immunized as per EPI schedule.

Examination

On admission patient was unconscious pulse – 70 beats/min, BP – 90/70 mm Hg, respiratory rate 17/min and temperature was 99 F . Other Systemic examination revealed no abnormality.

Investigation on 26.10.17

HB% -11.8gm/dl

ESR -25mm in 1st hour

WBC count- 8000/mm³

Differential count

N – 62%

L – 33%

E – 03%

M – 02%

B - 00%

Investigation on 26.10.17

RBS – 19 mmol/l

Serum Creatinine:3.17mg/dl

SGPT(ALT):55U/L

Serum electrolyte: Na 154,

K-2.17,

Cl-119,

ECG:Normal

Investigation

27/10/17

RBS – 5.9 mmol/l

Serum Creatinine:1.6mg/dl

SGPT(ALT):64U/L

Serum electrolyte: Na 144,

K-4,5,

Cl-108,

Urine for ketone bodies:absent

CXR P/A view:Normal

28/10/12

RBS – 5.7 mmol/l

Serum Creatinine:1.4mg/dl

SGPT(ALT):70U/L

Serum electrolyte: Na 140,

K-4,3,

Cl-103,

Urine R/E:Normal

29/10/17

RBS – 5.9 mmol/l

Serum Creatinine:1.4mg/dl

SGPT(ALT):90U/L

Serum electrolyte: Na 141,

K-4,1,

Cl-102,

30/10/17

RBS – 5.5 mmol/l

Serum Creatinine:1.1mg/dl

SGPT(ALT):77U/L

Serum electrolyte: Na 141,

K-4,0,

Cl-103,

Investigation

On 01/11/17

RBS – 5.7 mmol/l

Serum Creatinine: 1mg/dl

SGPT(ALT):60U/L

Serum electrolyte: Na 142,

K-4.4,

Cl-105,

USG of W/A:

Comment: Gall bladder sludge

Treatment

The patient was treated in ICU and subsequently with conservative management patient was improved. Patient was discharged after 2 days when patient was clinically stable and all the biochemical parameters were normal.

Treatment

During Discharge psychiatric evaluation was done .There were no psychiatric abnormalities related to patient .

Discussion

The LD50 of sugar — the quantity per kilogram that would kill half of an animal test population — is 13.5 grams per pound. That's consumed all at once and doesn't guarantee death, but represents what would kill 50 percent of rats. It's possible that sugar might be more or less toxic in humans, according to the Washington-based organization.

Source: New York Post

Discussion

In a controlled challenge with glucose, tumor necrosis factor was found to be elevated in serum. Most probably in our case it was responsible for multiple organ failure(MOF).

When monocytes were challenged with sugar *in vitro* they produced reactive oxygen species. This was termed the "joker effect" or glucose-induced genotoxicity.

Discussion

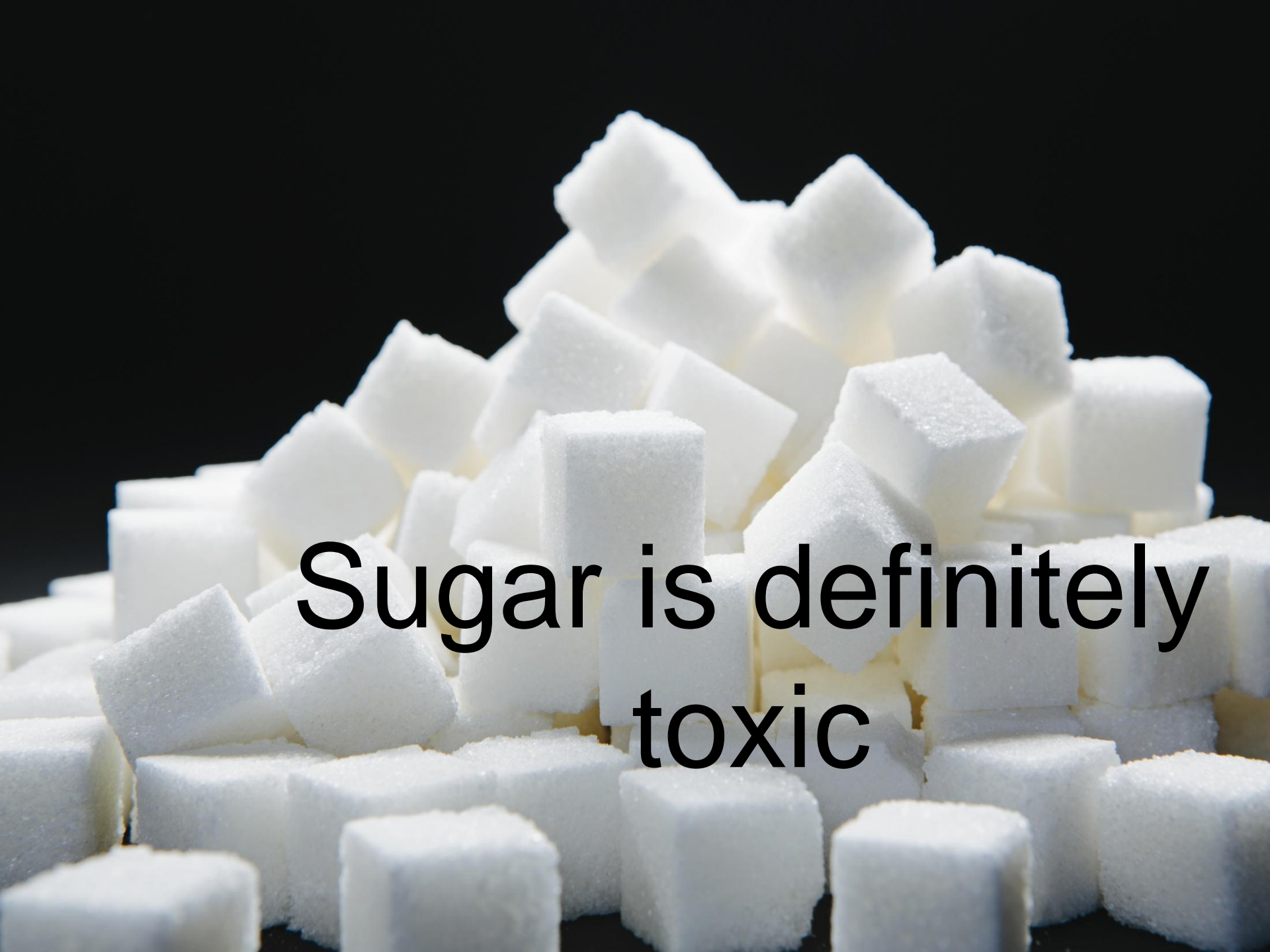
Chronic sugar toxicity is an established fact but sugar can cause acute toxicity if you take large amount of sugar at a time

Conclusion

Previously we didn't have any concept regarding sugar toxicities neither in our country or any other parts of the world. But from our case we can be pretty sure that sugar is a toxic if u take large amount of sugar at a time.

Take Home Message

sugar is a toxic substance if you take large amount of sugar at a time.

A close-up photograph of a large pile of white sugar cubes. The cubes are stacked and scattered, creating a textured, three-dimensional effect. The background is a solid, deep black, which makes the white sugar cubes stand out prominently. The lighting is soft, highlighting the edges and surfaces of the cubes.

**Sugar is definitely
toxic**

Thank you

