Crataegus Mexicana (Tejocote) Exposure Associated with Pancreatitis

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INTRODUCTION

- A species of hawthorn, Crataegus mexicana (tejocote), has been marketed as a weight-loss supplement that is readily available for purchase online (Figure 1).
- While several hawthorn species have shown clinical benefit in the treatment of heart failure owing to their positive inotropic effects, little is known about hawthorn, and tejocote (Figure 2) in particular, when consumed in excess.
- We describe a case of tejocote exposure which precipitated new onset diabetic ketoacidosis (DKA) with pancreatitis.

PATIENT DESCRIPTION

- A 46-year-old female with no significant past medical history who presented to the emergency department with the chief complaint of fatigue, food aversion and intermittent nausea.
- Symptoms had been ongoing on for the last 4 days after the patient stopped taking Mexican Hawthorne root, which she had been consuming the last 4 months.
- During this period, she had lost 30lbs. The patient appeared extremely ill, tachycardic and tachypneic.
- She also displayed an acutely tender abdomen in the epigastric region with voluntary guarding. After 2L of fluid resuscitation the patient's vitals remained unchanged.

Figure 1. Crataegus mexicana (tejocote), marketed as a weight-loss supplement

Figure 2. Tejocote fruit

INTERVENTION

- Bedside ultrasound showed a completely collapsed IVC, consistent with severe hypovolemia which progressed to shock eventually requiring norepinephrine after 5 total liters of fluid resuscitation.
- Later it was discovered that the patient had a diagnosis of "pre-diabetes".
- Pertinent laboratory work revealed new onset DKA with initial pH 7.18, beta hydroxybuterate > 9 (normal 0.1-0.4), glucose of 1,232.
- Given the patient's epigastric abdominal pain and ill appearance a tomography of the abdomen and pelvis with IV contrast was obtained which revealed acute pancreatitis and a lipase of 2,344.
- Patient's hospital course was complicated by encephalopathy, pneumonia, splenic thrombosis and bilateral lower extremity DVT's.
- She was discharged on hospital day 14 on insulin and apixaban.

CONCLUSIONS

- This is the first documented case of the Tejocote root ingestion causing acute pancreatitis, new onset DKA and hypovolemic shock.
- These complications are likely from the diuretic properties of the root, leading to volume loss and starvation state.