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Case Report and Review: Hawthorne Root Toxicity

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Abstract:
Here we present the case of a patient who purchased a hawthorne root product, Raiz de Tejocote, for weight loss purposes. The side effect profile seen including a positive digoxin level, are consistent the hawthorne root. This case reinforces the importance of asking a patient about all medications, including over the internet medications.

Case Presentation:
A 40 year old female presented to the Emergency Department (ED) with a complaint of myalgias over a three day period. She noted that she had begun taking over the counter Hawthorne root extract two days prior to the onset of symptoms. She purchased the product through the internet, having heard of Hawthorne root from friends as a way to lose weight. The brand was marked Raiz de Tejocote, 49 milligrams per pill. She took 4 pills daily. The friends told her that they had learned of the product on social media.

The patient denies shortness of breath, syncope, chest pain, or palpitations. She stated that he muscles felt sore. She denied any other medications. She denies allergies to medications and had no significant past medical or past surgical history. Her last normal period was two weeks prior to the ED presentation. Vital signs were noteworthy for a heart rate of 55 beats per minute. She had tenderness of palpation of her muscles diffusely. The physical exam was otherwise unremarkable. Labs were ordered for a CBC, BMP, CK, digoxin level, COVID-19, Flu A and Flu B, a urinalysis and a urine pregnancy test. The pregnancy test was negative as the patient states that she felt well with no return of the myalgias had resolved. At one week follow up the patient notes that the myalgias had improved and that she wished to be discharged to home.

Discussion:
Hawthorne root is a genus with a large number of species of shrubs and trees in North America, South America, Europe and Asia. A hawthorne species from Mexico is known both as Raiz de Tejocote as well as the Mexican Hawthorne. The fruit of the Mexican Hawthorne is called the tejocote and hence the Raiz de Tejocote means the root of the tejocote. Various species of hawthorne have been used worldwide in a traditional medicine context as a treatment of congestive heart failure (CHF). The National Center for Complementary and Integrative Medicine notes that there is conflicting evidence concerning the effect of the use of hawthorne root in heart failure. Side effects can include nausea, vomiting, diarrhea and myalgias.

A review by Holubarsch et al concluded that they may be a beneficial effect in CHF as an adjunctive medication. Dahmer concluded that the therapeutic effect of hawthorne root in CHF is likely based on oligomeric procyanidins in the leaves and that the flowers of the hawthornes may have a free-radical scavenging effect. Because of these effects, Dahmer notes that hawthorne root use is not recommended in pregnancy. Side effects in Dahmer’s review include nausea, vomiting, fatigue, vertigo and dizziness. Hawthorne root may increase the activity of digitals and may have intrinsic cardiac glycoside activity.

Conclusions:
In the case presented, the myalgias and the initial mild bradycardia as well as the digoxin level are explicable by the use of hawthorne root for weight loss purposes. This case reinforces the importance of asking a patient about all medications, including over the internet medications.

References:

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