**BACKGROUND**

- Statins are generally well tolerated, but some patients discontinue the agents due to skeletal muscle and/or joint complaints.
- Other potential causes of arthralgia and myalgia should be investigated including:
  - Other medications
  - Disease states
  - Vitamin deficiency
  - Food additives: preservatives, artificial sweeteners
- Musculoskeletal effects have been reported with chronic ingestion of artificial sweeteners, particularly aspartame.
- To the best of our knowledge, myalgia and arthralgia with sucralose have not been previously reported.

**PURPOSE**

- To highlight apparent skeletal muscle and joint effects of sucralose in a patient with perceived statin-associated myalgia and arthralgia.

**CASE REPORT**

- 65 year old Caucasian male with pure hypercholesterolemia and coronary heart disease (angina and stent placement) was referred to a lipid specialty clinic.
- Positive history of myalgia with daily statin therapy despite normal serum creatine kinase levels.
- Over the next 4 years, the patient was prescribed intermittent dosing with rosuvastatin and pitavastatin.
  - Rosuvastatin 10 mg weekly caused intolerable myalgia and arthralgia.
  - Pitavastatin 2 mg twice weekly also caused myalgia and arthralgia but symptoms were tolerable.
- During this time, the patient noticed an association between severity of myalgia and arthralgia and his coffee and sucralose (Splenda®) intake.
- In August 2014 patient experienced severe muscle and joint pain while at his peak intake of sucralose. At this time he was consuming:
  - Pitavastatin 2 mg twice weekly
  - 6-7 cups of decaffeinated coffee daily
  - 12-14 one gram packets of sucralose daily

**MANAGEMENT**

- Abrupt discontinuation of coffee and sucralose resulted in complete muscle and joint pain resolution within 36 hours.
- Patient permanently discontinued sucralose consumption.
- Atorvastatin 80 mg daily was started and tolerated for 9 months without complaints.
- Later switched to rosuvastatin 40 mg daily and continues to tolerate without adverse effects.
- Currently, the patient consumes several cups of decaffeinated coffee daily sweetened with stevial glycosides (Stevia®) or erythritol/rebiana (Truvia®) without issue.

**LITERATURE REVIEW**

- Literature search performed in PubMed.
- Relevant findings of myalgia associated with food additive ingestion:
  1. Case reports of two patients whose fibromyalgia symptoms resolved after discontinuing aspartame consumption.
  2. A report of four female patients diagnosed with fibromyalgia. All four patients experienced complete or near complete resolution of fibromyalgia pain upon discontinuation of monosodium glutamate (MSG) or MSG plus aspartame. All the patients experienced recurrence of fibromyalgia pain when MSG was reintiated.

**DISCUSSION**

- Practitioners with patients suffering from apparent statin-associated myalgia and arthralgia should inquire about ingestion of food additives including:
  - Aspartame
  - Sucralose
  - MSG
- Discontinued ingestion of these agents may provide relief to muscle and/or joint symptoms.

**REFERENCES**


**CONCLUSIONS**

- Our patient did not experience statin-associated myalgia and arthralgia.
- Muscle and joint pain was likely a result of daily sucralose ingestion.
- Eliminating sucralose from his diet enabled the patient to tolerate a high intensity statin daily.

**CONTACT INFORMATION**

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