

### Question 38 – Week of April 29

A 32-year-old woman is seen in your clinic for complaints of nausea and vomiting. She states that she has episodes of nausea and vomiting that are usually preceded by diaphoresis in addition to the nausea. She states that the vomiting can last for about a day or 2 and usually causes her to miss work. She'll state that over the next day or two she may feel nauseated but won't vomit as much and usually can restore oral intake. She has about 4 to 6 episodes of this per year and is noted this as a problem for least 4 years. She feels quite well during the intervening time periods. She was seen by a prior gastroenterologist who completed a upper GI x-ray, endoscopy and gastric emptying study and found all of these to be within normal limits except for a "gastritis" noted on the EGD. Additionally, baseline laboratory workup including a CBC and complete metabolic panel along with endocrine testing including a TSH were all within normal limits. Biopsies from the stomach and the duodenum during the upper endoscopy revealed evidence of *Helicobacter pylori* which was treated with lansoprazole, amoxicillin and tetracycline. She was told that the "gastritis" found on the upper endoscopy was secondary to a "germ" for which she was treated and that over time her symptoms should improve. Unfortunately, they have not hence her visit to you. On further discussion you find that she has no loss of weight, loss of appetite or loss of energy. She denies any hematemesis or melena. She denies any oral cavity injury or mouth soreness, sore throat, dysphonia or dysphagia. She denies headaches and does not feel the episodes are associated with stress.

Her physical exam reveals a well-developed well-nourished appearing woman in no acute distress. Her HEENT exam reveals no evidence of oral erosions or ulcerations and no gingivitis. The neck exam reveals no lymphadenopathy. The lungs are clear to S. rotation and percussion both anteriorly and posteriorly and the cardiovascular exam is normal. The abdomen is nondistended and nontender with no organomegaly. There is no evidence of a succussion splash. No mass or fullness is noted.

Which of the following is the next best step in treating this condition for this patient?

- A. Initiation of a tricyclic antidepressant such as amitriptyline at a dose of 10 mg at bedtime.
- B. Referral to a behavioral therapist for cognitive behavioral therapy or biofeedback.
- C. Stool for *Helicobacter pylori* antigen to assess for successful eradication due to suboptimal initial therapy.
- D. Initiation of therapy with topiramate at a dose of 20-100 mg per day
- E. Start ondansetron at a dose of 4 mg every 6 hours as scheduled medication.

**Answer: A**

This patient presents with cyclic vomiting syndrome (CVS). She describes feeling quite well between episodes but then noticing a pre-emetic phase characterized in her case by nausea and diaphoresis and following this an intense vomiting phase that can last from one to less than 7 days. She also mentions a recovery phase of a day or two during which time she can reestablish

oral intake. She therefore meets the Rome III diagnostic criteria for CVS. This also requires that she have 3 or more discrete episodes in the year prior and an absence of nausea and vomiting between the episodes. At this time she is currently asymptomatic and therefore does not need therapy aimed at symptoms such as ondansetron. Additionally topiramate is effective in controlling acute symptoms typically when headache is a presenting feature, she denies this symptom. The symptoms are not secondary to *Helicobacter pylori* associated nonspecific gastritis which was a serendipitous finding on the endoscopy and a follow-up of therapy is not the best intervention at this time. Although anxiety and stress full events can trigger symptoms she has not related that in her history and therefore referral to behavioral therapist might not be the best initial therapy. Starting a tricyclic antidepressant such as amitriptyline at low doses such as 10-25 mg per day is usually very effective at preventing recurrent symptoms. 80% of patients notice significant decrease in duration and frequency of episodes with this medical intervention.

Reference:

Hejazi, R. and McCallum, R.W. *Aliment Pharmacol Ther.* 34: 263-273; 2011.