NR 603 Week 5-1

Chief complaint: Abdominal pain and cough

PMH: Asthma

Demographics:J.W., 41-year-old, Caucasian female

PSH: Hysterectomy

Allergies: NKDA

Social/Family Hx:Denies illicit drug use. She smokes ½ ppd for the last 10 years, and drinks two to three times a week. Reports eating a regular diet. Lives at home with her husband and is the manager at a local bank. Her mother suffers from hypertension a high cholesterol, and it is unknown of her father’s history.

Medications: Advair and Albuterol (PRN)

HPI:41-year-old, female, presents to the office complaining of intermittent, abdominal pain onset three weeks ago. Reports pain and a burning sensation after eating meals, and a cough occurring only at night with difficulty in sleeping. She has not tried any medications over the counter to help alleviate her symptoms. However, reports that drinking water helps to alleviate symptoms. Denies having any history of this occurring before.

ROS:General: No weight change, generally healthy, no change in strength or exercise tolerance. Head: No headaches, no vertigo, no injury. Eyes: Normal vision, no diplopia, no tearing, no scotomata, no pain. Ears: No change in hearing, no tinnitus, no bleeding, no vertigo. Nose: No epistaxis, no coryza, no obstruction, no discharge. Mouth: No dental difficulties, no gingival bleeding. Neck: No stiffness, no pain, no tenderness, no noted masses. Chest: No dyspnea, no wheezing, no hemoptysis.Heart: No chest pains, no palpitations, no syncope, no orthopnea. Abdomen: No change in appetite, no dysphagia,no bowel habit changes, no emesis, no melena. GU: No urinary urgency, no dysuria, no change in nature of urine. Musculoskeletal: No pain in muscles or joints, no limitation of range of motion, no paresthesia’s or numbness. Neurologic: No weakness, no tremor, no seizures, no changes in mentation, no ataxia. Psychiatric: No depressive symptoms, no changes in sleep habits, no changes in thought content. Denies fever, chills, nausea, vomiting, foreign travel. Not exposed to similar sick contacts.

Physical exam:

Vitals: 98.2 T, 84 BPM, 18RR, 128/70 BP, Height 5’2, Weight 162lbs, BMI 29.6 (Over weight)

General Physical Exam: Normotensive, in no acute distress. Head: Normocephalic, no lesions. Eyes: PERRLA, EOM's full, conjunctivae clear. Ears: EAC's clear, TM's normal. Nose: Mucosa normal, no obstruction. Throat: Clear, no exudates, no lesions, no dental caries or erosion noted. Neck: Supple, no masses, no thyromegaly, no lymphadenopathy, no bruits. Chest: Lungs clear, no rales, no rhonchi, no wheezes. Heart: RR, no murmurs, no rubs, no gallops. Abdomen: Pain on light palpation in the epigastric region. Soft, no masses, BS normal. Back: Normal curvature, no tenderness. Extremities: FROM, no deformities, no edema, no erythema. Neuro: Physiological, no localizing findings. Skin: Normal, no rashes, no lesions noted.

Associated risk factors/Demographics:A few associated risk factors involving this patient and GERD include the following: obesity, smoking, and the use of alcohol. In addition to this, having asthma can worsen GERD symptoms, or vice versa, GERD can worsen one’s asthma complaints. Gastroesophageal reflux and asthma are often encountered together, and complex interactions occur during which GERD may increase asthmatic symptoms or asthma may trigger or worsen GERD (Ates & Vaezi, 2014). GERD is often seen in patients with a history of asthma, more so than the general population.

Three common differential diagnoses (cc, pathophysiology, and rational):

1. Gastroesophageal reflux disease (GERD): GERD often occurs whenever one has a “back flow” of stomach acid, which reenters into one’s esophagus. This is a digestive disorder affecting the lower esophageal sphincter. GERD is one of the most frequent seen gastrointestinal diagnosis in the primary care setting (Uphold & Graham, 2013). Every individual physiologically has gastric reflux, however not everyone suffers from pathological GERD. Pathologically the lower esophageal sphincter weakens resulting in regurgitation of stomach acid. One’s esophagus is used to maintaining a ph around 7.0. However, one’s stomach acid has a ph around 4.0, therefore when stomach acid is regurgitated into one’s esophagus they are bound to become symptomatic. These symptoms include the following: heart burn, hoarseness, nausea, bloating, belching, epigastric pain, sore throat, cough, or disrupted sleep. This patient presents with abdominal pain upon palpation to epigastric region, her pain and symptoms worsen after meals, she has interrupted sleep at night, and also presents with a chronic cough, which is worse at night time. She has a history of asthma, which as mentioned before can cause GERD symptoms to worsen, however it may also have the opposite affect in causing asthma symptoms to worsen. She is also a smoker. Smoking may result in a reduction in lower esophageal sphincter pressure (Uphold & Graham, 2013). Due to this, it is important to educate on the importance of smoking cessation. Another associated risk factor this patient suffers from that affects her GERD symptoms is obesity. It has been shown that weight loss is associated with improvement in GERD symptoms.
2. Dyspepsia:Dyspepsia, also known as indigestion, is not a disease. However, it is symptoms that cause pain in the upper abdomen. The cardinal features of dyspepsia are early satiation and a sense of epigastric heaviness after a meal while the main feature is pain or a burning sensation in the epigastric area (Yarandi& Christie, 2013). There are several factors, which are thought to contribute to the pathogenesis of dyspepsia. These factors include: *H. pylori*, bacterial gastroenteritis, abnormal gastric motility, genetic factors, dietary factors, or one’s lifestyle. Visceral hypersensitivity, impaired gastric accommodation and impaired gastric emptying are commonly reported by patients with functional dyspepsia (Yarandi& Christie, 2013). Symptoms associated with dyspepsia include the following: bloating, upper abdominal pain (burning), abdominal fullness after eating, nausea, vomiting, and belching. Often dyspepsia is caused by acid reflux disease or a stomach ulcer. J.W. suffers from abdominal pain after eating along with a burning sensation to her epigastric region. Other than these two symptoms she does not present with anything else associated with dyspepsia.
3. Gallbladder disease:The gallbladder releases bile into the small intestine to help with the digestion of food. Gallbladder disease is one of the most commonly treated surgical diseases, and is considered a digestive disorder. The most common form of gallbladder disease is cholelithiasis. This occurs when crystals or gallstones accumulate into one’s gallbladder. Gallstones are usually asymptomatic, however they can progress into a symptomatic disease. The formation of gallstones occurs due to cholesterol crystals, calcium deposits, or the presence of biliary sludge. Once inflammation of the gallbladder beings, additional inflammatory mediators are released, further propagating gallbladder inflammation (2016). Symptoms associated with this may include: nausea, vomiting, severe abdominal pain, which may worsen after eating, chills, fever, right shoulder pain (referred pain), or loose or light colored stools. J.W. suffers from pain after eating meals, however she denies any nausea, vomiting, right shoulder pain, or a “sharp” shooting abdominal pain.

Compare and Contrast:

The only common denominator related to all three of the differential diagnosis given is abdominal pain. However, due to J.W.’s lifestyle habits she places herself at a higher risk for GERD, dyspepsia, and gallbladder disease. Due to the fact she smokes and suffers from asthma places her at an increased risk for obtaining GERD. GERD symptoms such as heartburn and regurgitation are experienced by nearly 80% of patients with a diagnosis of asthma (Ates&Vaezi, 2014). She has a burning sensation that worsens after eating and she presents with a chronic cough at night associated with a sore throat. This could be in relation to the regurgitation of stomach acid coming from her lower esophageal sphincter. Gallbladder disease is listed as my least likely diagnosis due to the fact the patient complains of a burning sensation to her epigastric region after meals. She does not present with a sharp, shooting pain, which is usually associated with nausea and vomiting in gallbladder disease. She could be presenting with just dyspepsia, however that will be determined or ruled out completely once diagnostic testing has resulted.

Relevant testing required for diagnosis/Guidelines related to diagnoses:

Per clinical guidelines there is nodiagnostic testing needed to diagnoseone with GERD under the age of 55 (Uphold & Graham, 2013). If she were over the age of 55 she would have to have an upper endoscopy performed to confirm the diagnosis of GERD. However, as a health care provider, I would order the following in relation to J.W.’s presenting symptoms: CBC, CMP, and *H. pylori*breath test. For patients without alarm symptoms, noninvasive testing for *H. pylori*, with either carbon-13-labeled urea breath testing or stool antigen testing, is recommended as a first-line strategy (Dore, Pes, Bassotti, &Usai-Satta, 2016). A CBC and CMP allows for us to check basic blood count along with looking for any electrolyte imbalances and liver function test, which can help to rule out gallbladder disease.

At this point, I would place the patient on Omeprazole 20mg to take daily and have her follow up in one week to see if her symptoms have improved or not. From there, we will also have blood work and the *H. pylori* testing results back. If the patient does not regain any relief from Omeprazole, and continues to have increased main or other symptoms associated with eating an outpatient ultrasound of the gallbladder may be ordered. Diagnosis of cholelithiasis is performed by history taking, physical examination, blood examination, ultrasonography, and abdominal x-ray (Tazuma, et al., 2016).

Kindly,

Jessica Ospina

References:

U. (2016, December 15). Acute Cholecystitis: Pathogenesis, clinical features, and diagnosis. Retrieved October 3, 2018, from https://www.uptodate.com/contents/acute-cholecystitis-pathogenesis-clinical-features-and-diagnosis.

Ates, F., & Vaezi, M. F. (2014). Insight Into the Relation Between Gastroesophageal Reflux Disease and Asthma. Gastroenterology and Hepatology, 10(11), 729-736. Retrieved October 3, 2018, from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5395714/.

Dore, M. P., Pes, G. M., Bassotti, G., &Usai-Satta, P. (2016). Dyspepsia: When and How to Test forHelicobacterpyloriInfection. Gastroenterology Research and Practice, 2016, 1-9. doi:10.1155/2016/8463614.

Tazuma, S., Unno, M., Igarashi, Y., Inui, K., Uchiyama, K., Kai, M., . . .Shimosegawa, T. (2016). Evidence-based clinical practice guidelines for cholelithiasis 2016. Journal of Gastroenterology, 52(3), 276-300. doi:10.1007/s00535-016-1289-7

Uphold, C. R., & Graham, M. V. (2013). Clinical guidelines in family practice (5th ed.). Gainesville, Florida.:Barmarrae Books.

Yarandi, S. S., & Christie, J. (2013). Functional Dyspepsia in Review: Pathophysiology and Challenges in the Diagnosis and Management due to Coexisting Gastroesophageal Reflux Disease and Irritable Bowel Syndrome. Gastroenterology Research and Practice, 2013, 1-8. doi:10.1155/2013/351086.