Gastroesophageal Reflux Disease

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Introduction
Gastroesophageal reflux disease (GERD) is a disease that causes pain and erosion of the esophagus. It has a prevalence rate of 5 to 20 percent worldwide (Akiyama et al., 2018). It not only affects a patient’s quality of life but also has a significant economic burden. The burden of GERD in the United States can reach up to 10 billion dollars per year when combining direct and indirect costs (Menas & Herbstia, 2017). GERD is considered a multifactorial disease (Blumberg & Schumacher, 2016). GERD is considered a multifactorial disease (Blumberg & Schumacher, 2016).

Gastroesophageal reflux disease was chosen because of its increasing prevalence in the family nurse practitioners patient population. This is a disease that can reduce a patient’s quality of life significantly, but it is not routinely thought of as a debilitating disease. It has an ever-increasing multifactorial pathology and treatment plans should be based upon the identified contributing pathology to provide the best outcomes for the patients. In addition, to medical and surgical treatments, the family nurse practitioner can counsel the patient on lifestyle changes that can reduce the effect that gastroesophageal reflux disease has on quality of life. The family nurse practitioners need to focus on preventing gastroesophageal reflux disease from progressing to Barrett’s esophagus or esophageal adenocarcinoma and monitoring patients for these diseases.

Signs and Symptoms

• Acid regurgitation (Singnap et al., 2020)
• Retrosternal burning sensation (Singnap et al., 2020)
• Chest pain (Singnap et al., 2020)
• Laryngitis (Singnap et al., 2020)
• Asthma (Singnap et al., 2020)
• Chronic cough (Singnap et al., 2020)
• Dental erosions (Singnap et al., 2020)
• Heartburn
• Chest Pain
• Excessive Salivation
• Regurgitation
• Gastric Bloating
• Trouble Swallowing
• Sensitiveness to Some Foods & Liquids

Underlying Pathophysiology

GERD is a multifactorial disease that can be caused by any combination of the following pathophysiologies:

• Defective valve at the esophagogastric junction (Menas & Herbstia, 2017)
• Transient lower esophageal sphincter relaxation (Bashashati et al., 2016)
• Low esophageal sphincter contracture (Bashashati et al., 2016)
• Increased transdiaphragmatic pressure gradient that overwhelm the valve at the esophagogastric junction causes this acid to seep into the esophagus (Menas & Herbstia, 2017)
• Increased indomethacin of esophagogastric junction (Bashashati et al., 2016)
• Delayed gastric emptying (Bashashati et al., 2016)
• Disturbed esophageal acid clearance (Bashashati et al., 2016)
• Hiatal sliding hernia (Bashashati et al., 2016)
• Risk increases as BMI increases (Menas & Herbstia, 2017)

GERD is a disease with an estimated global prevalence of 10-20%. It has a multifactorial pathophysiology with both typical and atypical presentations in patients. Understanding what can cause GERD allows for practitioners to identify patients that are at risk and screen and treat for GERD in a timely manner to avoid complications. Left untreated, GERD can lead to esophagitis, benign esophageal stenosis, esophageal ulcers, upper digestive hemorrhage, Barrett’s esophagus and esophageal adenocarcinoma (Singnap et al., 2020). Understanding the severity of the disease is imperative for both the patient’s and medical practitioners. It can have devastating effects if not properly treated and can significantly impact a patient’s quality of life.

Significance of Pathophysiology

GERD is a disease that causes pain and erosion of the esophagus. It has a prevalence rate of 5 to 20 percent worldwide (Akiyama et al., 2018). It not only affects a patient’s quality of life but also has a significant economic burden. The burden of GERD in the United States can reach up to 10 billion dollars per year when combining direct and indirect costs (Menas & Herbstia, 2017). GERD is considered a multifactorial disease (Blumberg & Schumacher, 2016). GERD is considered a multifactorial disease (Blumberg & Schumacher, 2016).

Nursing Implications

• It is essential that nurses familiarize themselves with both a typical and atypical presentation of GERD.
• Because it affects 20% of the population many patients will have this disease.
• Nurses need to educate patients on how best to prevent and control GERD.
• Risks can be reduced with proper diet and exercise to prevent obesity, a known risk factor.
• Small, frequent meals may help control symptoms.
• Educate patients to sleep with their head slightly elevated.
• Educate patients to avoid foods that exacerbate their symptoms such as spicy foods.
• Educate patients to seek treatment for any GERD symptoms.
• Educate patients to follow their medication regimen to prevent complications of GERD.

(How Gastroesophageal Reflux Disease (GERD) is Diagnosed, n.d.)

Additional Sources

(Gastroesophageal Reflux Disease (or GERD) - Gastroenterologists in Flemington & Hillsborough, N.J.)

(Gastroesophageal Reflux Disease is Deceptively Complex)

(Gastroesophageal Reflux Disease (GERD) - Digestive Doctors, n.d.)

(Gastroesophageal Reflux Disease for GERD - Gastroenterologists in Flemington & Hillsborough, N.J., n.d.)

(GERD Symptoms: Signs of Acid Reflux Disease)

(GASTROESOPHAGEAL REFLUX DISEASE - Laparoscopic Anti-Reflux Surgery)

References

GERD is a very prevalent disease. It is a multifactorial disease that is caused when acid from the stomach refluxes into the esophagus through a defective valve at the esophagogastric junction or through improper pressure gradients. This disease can be exacerbated by a hiatal hernia or through obesity. Nurse practitioners will treat many patients that are affected by this disease. It can affect patient’s quality of life, as it is essentials the nurse practitioners work to prevent and treat GERD. Patients with GERD will exhibit symptoms such as acid regurgitation, heartburn and chronic cough (Singnap et al., 2020). If GERD is left untreated it can have devastating effects. It can lead to conditions such as Barrett’s esophagus and esophageal adenocarcinoma (Singnap et al., 2020), it has many implications for nursing care. It requires that nurses are aware of the disease pathophysiology, signs, and symptoms so that they can identify and treat GERD in their patients. They need to be aware of education that should take place for the patient regarding treatments and symptom management. There are different treatments as PPI therapy, alginate therapy and laparoscopic anti-reflux surgery that may be used depending on the patient’s presentation. This is a disease that can be managed through treatment and lifestyle changes.

Conclusions

(GERD Symptoms: Signs of Acid Reflux Disease, n.d.)

Treatment

Treatment for GERD has several different options. It will tend to follow a linear pattern, first approach, second approach and so on.

1. Proton Pump Inhibitors (PPI)
   - First-line approach when acid production is greater than 140 mEq/L (Alpyama et al., 2018)
   - Treat for 6 to 8 weeks (Alpyama et al., 2018)

2. Surgical treatments, the family nurse practitioners work to prevent and treat GERD. Patients with GERD will exhibit symptoms such as acid regurgitation, heartburn and chronic cough (Singnap et al., 2020). If GERD is left untreated it can have devastating effects. It can lead to conditions such as Barrett’s esophagus and esophageal adenocarcinoma (Singnap et al., 2020), it has many implications for nursing care. It requires that nurses are aware of the disease pathophysiology, signs, and symptoms so that they can identify and treat GERD in their patients. They need to be aware of education that should take place for the patient regarding treatments and symptom management. There are different treatments as PPI therapy, alginate therapy and laparoscopic anti-reflux surgery that may be used depending on the patient’s presentation. This is a disease that can be managed through treatment and lifestyle changes.