

Pathology 2015: Autopsy prevalence of gastroesophageal reflux disease - Momoh Martins - Babcock University, Nigeria

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Introduction: Gastroesophageal reflux disease (GERD) is relatively rare in Nigeria. There are few data regarding its prevalence in Nigeria. Recent population-based studies have shown that it is increasing; and this can lead to a risk of progression to Barrett's esophagus and a potential for progression to an esophageal adenocarcinoma. The aim of this study is to determine the prevalence of autopsy of gastroesophageal reflux disease (GERD) in LUTH.

Material and methods: Histopathological analysis of paraffin-coated tissues stained with hematoxylin and eosin as well as special stains such as PAS, Alcian blue and Giemsa were used on the gastroesophageal samples of 100 autopsy case. Representative gastric samples were also examined. **Results:** The prevalence of GERD in this study was thirteen percent and no cases of Barrett's esophagus and dysplasia were recorded.

Gastroesophageal reflux disease (GERD), also branded as acid reflux, is a long-term disorder in which the contents of the stomach go up into the esophagus, triggering either symptoms or complications. Symptoms include the taste of acid in the back of the mouth, heartburn, bad breath, chest pain, regurgitation, breathing problems, and tooth wear. Complications include esophagitis, esophageal stenosis, and Barrett's esophagus. Risk factors include obesity, pregnancy, smoking, hiatal hernia and taking certain medications. Medications elaborate may comprise antihistamines, calcium channel blockers, antidepressants and sleeping pills. Acid reflux is caused by a poor closure of the lower esophageal sphincter, which is at the junction between the stomach and the esophagus. Diagnosis in those who do not improve with simpler measurements may involve gastroscopy, upper GI series, monitoring of esophageal pH, or esophageal manometry.

Treatment options include lifestyle changes; medication; and sometimes surgery for those who do not improve with the first two measures. Lifestyle

changes include not going to bed for three hours after eating, lifting the head of the bed, losing weight, avoiding foods that cause symptoms, and quitting smoking. Medications embrace antacids, H₂ receptor blockers, proton pump inhibitors and prokinetics. In the western biosphere, amid 10 and 20% of the population is affected by GERD. Occasional gastroesophageal reflux without annoying symptoms or complications is even more common. The typical indications of GERD were first described in 1925, when Friedenwald and Feldman commented on heartburn and its possible relationship to a hiatal hernia. In 1934, gastroenterologist Asher Winkelstein designated reflux and accredited the indications to stomach acid.

Diagnostic:

Endoscopic image of a peptic stenosis or narrowing of the esophagus near the junction with the stomach: it is a complication of chronic gastroesophageal reflux and can be the cause of dysphagia or difficulty swallowing.

The analysis of GERD is regularly made once typical symptoms are present. Reflux may be present in people without symptoms and diagnosis requires both symptoms or complications and reflux of gastric contents. Other investigations may include esophagogastroduodenoscopy (EGD). Barium swallowing x-rays should not be used for diagnosis. Esophageal manometry is not recommended for diagnosis, it is only recommended before surgery. Ambulatory monitoring of esophageal pH may be useful in those who do not improve after PPIs and is not necessary in those in whom Barrett's esophagus is seen. An investigation of *H. pylori* is generally not necessary.

The current gold standard for diagnosing GERD is monitoring esophageal pH. It is the most objective test for diagnosing reflux and allows monitoring of GERD patients in their response to medical or surgical treatment. A practice for diagnosing GERD is short-

term treatment with proton pump inhibitors, symptom improvement suggesting a positive diagnosis. Short-term treatment with proton pump inhibitors can help predict abnormal 24-hour pH monitoring results in patients with symptoms suggestive of GERD.

Endoscopy

Endoscopy, research in the stomach with a fiber optic telescope, is not systematically necessary if the case is typical and responds to treatment. It is recommended when people do not respond well to treatment or have alarm symptoms, including dysphagia, anemia, stool blood (chemically detected), wheezing, weight loss or changes in voice. Some doctors recommend once-in-life or 5-10 years endoscopy for people with long-term GERD to assess the possible presence of Barrett's dysplasia or esophagus.

Biopsies performed during gastroscopy can show:

- Edema and basal hyperplasia (non-specific inflammatory changes)
- Lymphocytic inflammation (non-specific)
- Neutrophilic inflammation (frequently outstanding to reflux or Helicobacter gastritis)

Eosinophilic inflammation (usually due to reflux): The presence of intraepithelial eosinophils may suggest a diagnosis of eosinophilic esophagitis (EE) if eosinophils are present in sufficient numbers. Fewer than 20 eosinophils per high power microscopic field in the distal esophagus, in the presence of other histological features of GERD, is more consistent with GERD than with EA.

- Intestinal metaplasia with goblet cells or Barrett's esophagus
- Lengthening of the taste buds
- Thinning of the scaly cell layer
- Dysplasia
- Carcinoma

Changes in reflux may not be erosive in nature, leading to "non-erosive reflux disease"

Treatment:

GERD treatments can include food choices, lifestyle changes, medication, and possibly surgery. Initial treatment is often done with a proton pump inhibitor such as omeprazole. In some cases, a person with symptoms of GERD can manage them by taking over-the-counter medications. It is often safer and cheaper than taking prescription drugs. Some guidelines recommend trying to treat symptoms with an H2 antagonist before using a proton pump inhibitor due to cost and safety concerns. Some foods can promote GERD, but most dietary interventions have little effect. Some evidence suggests that a reduction in sugar intake and an increase in fiber intake may help. It is recommended to avoid specific foods and not eat before lying down for those with symptoms of GERD. Foods that can precipitate GERD include coffee, alcohol, chocolate, fatty foods, acidic foods and spicy foods.

Weight loss can be effective in reducing the severity and frequency of symptoms. Raising the head of the entire bed with blocks, or using a corner pillow that elevates the individual's shoulders and head, can inhibit GERD while lying down. Although moderate exercise can improve symptoms in people with GERD, vigorous exercise can make them worse. Abstinence from smoking or alcohol does not seem to significantly relieve symptoms.

Biography: Momoh Martins completed his first studies in Edo State in Nigeria and attended the University of Lagos, graduated from MBBS in 1994. He served as medical consultant at the National Orthopedic Hospital of Igbobi from 2000 to 2006. He then continued his studies at the National Post Graduate Medical College of Nigeria, for a residency training in histopathology with the training point of the Lagos University Hospital and graduated from FMCPATH in 2013. He is currently professor, consultant pathologist and head of the histopathology department Benjamin Carson School of Medicine, Babcock University Ilishan Remo Nigeria.

Conclusion: Gastroesophageal reflux has therefore shown an apparent increase in the prevalence associated with previous studies. A more pathological clinical study will be necessary to confirm this assertion.