SEESHA – KRCH CME SERIES

GASTROESOPHAGEAL REFLUX DISEASE (GERD)

Dr. J. Gnanaraj MS, MCh (Urology), FARSI, FICS, FIAGES
GERD: Introduction

- Stomach contents leak backwards into the esophagus
- Irritation of the mucosal covering of the esophagus causes the symptoms of GERD
GERD: Causes

- Changes in the barrier between the stomach and esophagus
- Abnormal relaxation of the Lower Esophageal sphincter, hiatus hernia and lax esophageal hiatus
GERD: The problem

- The regurgitated fluid contains acid and pepsin that irritates and injures.

- Saliva and bicarbonate in it to some extent neutralize the effect of acid and gravity helps the fluid get back to the stomach.
GERD: Causes for weak LES

- Obesity, alcohol and cigarettes
- Coffee, garlic & onions, acid foods, large meals
- Hiatus hernia, obesity, diabetes and pregnancy
GERD: Common symptoms

- Heartburn {burning behind the chest after food lasting for 2 hrs.}
- Regurgitations and rumination
- Difficulty in swallowing
GERD: Other symptoms

- Chronic cough and wheezing
- Sleep disturbance
- Hiccups
- Sore throat
GERD: In children

- Coughing and vomiting
- Poor sleep
- Frequent Burping & respiratory infection
- Gagging choking and bad breath
GERD: Diagnosis

- Esophago-gastroduodenoscopy (EGD) – a rapid urease test could be carried out at that time
- Esophageal manometry
- 24 hour esophageal pH monitoring
GERD: Diagnosis

- Short trial of treatment could predict diagnosis without the expensive tests {Sensitivity 80% specificity 55%}

- In a study at mission hospital patient’s willingness for surgery predicted good results
GERD: Treatment

- Lifestyle modifications
  - Reduce weight
  - Quit smoking
  - Avoid acid food and large meals
  - Waiting for 3 hours before lying down
  - Elevate head end of bed by 8 inches
GERD: Treatment

- Proton pump inhibitors
  {Omeperazole, pantoprazole, rabeprazole}

- Pro-motility agents
  {Mosapride, Metaclopramide}

- Alginic acid, sucralfate
GERD: Treatment

- Laparoscopic fundoplication
  - Nissens
  - Anterior

- Narrows the hiatus and increases LES pressure
GERD: Results at BMCH

- Over 50 patients had laparoscopic surgery by Dr. J. Gnanaraj @ BMCH

- 95% of the patients benefitted from the surgery

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average number of preoperative visits</td>
<td>5.2</td>
</tr>
<tr>
<td>No. of patients available for follow up (&lt; 6/12)</td>
<td>33</td>
</tr>
<tr>
<td>Average number of postoperative visits</td>
<td>1.6</td>
</tr>
<tr>
<td>Number of patients unhappy with the procedure</td>
<td>2 (5%)</td>
</tr>
<tr>
<td>No. of patients &gt; 1 year not on medication but happy</td>
<td>18 (44%)</td>
</tr>
<tr>
<td>No. of patients lost to follow up after 6 / 12</td>
<td>15</td>
</tr>
<tr>
<td>Small tear in the liver caused by needle</td>
<td>1</td>
</tr>
<tr>
<td>Suture going thorough the Nasogastric tube</td>
<td>1</td>
</tr>
<tr>
<td>Feeling of Bloating of abdomen post OP</td>
<td>3</td>
</tr>
<tr>
<td>Number of patients enrolled in prepaid scheme</td>
<td>39</td>
</tr>
</tbody>
</table>
GERD: Newer treatment

- Endoscopic surgeries
  {surgery is carried out with instrument passed through the mouth}

- Stretta procedure where radiofrequency energy is applied to the LES
GERD: Complications

- Barrette’s esophagus is caused by long term GERD and is a pre-malignant condition
- Esophageal ulcer
- Esophageal stricture
- Dental problems
GERD: Clinical trials

- No significant difference between surgical or medical therapy in outcome
- No significant difference between Nissen’s and anterior fundoplication
- Surgical treatment less expensive and one time treatment
GERD: CME videos

- [Link](http://www.youtube.com/watch?v=5FpAStVjg2c)
- [Link](http://www.youtube.com/watch?v=_DfQOGEN1ss)
- [Link](http://www.youtube.com/watch?v=LEQdobNHO20)

You could search for “jgnanaraj” in Youtube to view the GERD and other CME videos