

## **SUMMARY AND CONCLUSION**

60 patients, 35 males and 25 females, suffering from intractable GERD with poor or no response to medical treatment, were included in this study.

All patients were collected from: Benha university hospital, Benha insurance hospital, Benha educational hospital and Police authority hospital since the period from January 1996 to February 1999.

These patients were classified into Group A. Including 32 patients (53.333%) and who were managed traditionally using the open technique and Group B. Including 28 patients (47.667%), who were operated upon laparoscopically for the same procedure.

The presenting symptoms were as follows in order of frequency: Heart burn (85%), regurgitation (35%), chest pain (43.333%), epigastric pain (31.667%), dysphagia (28.333%) and belching (10%). Endoscopy was done prior to surgery, which revealed reflux esophagitis among all the included cases. These patients was graded into Grade 1 (16.667%) Grade 2 (45%). Grade 3 (23.333%) and Grade 4 (15%). Any case with stricture formation, Barret's esophagus or suspicions of malignancy was excluded from this study.

Hiatus hernia, confirmed by barium study, was found among 75% of cases. While gall stones, detected by abdominal ultrasonography, was found in 35%.

Preoperative esophageal manometry and ambulatory 24 hour pH monitoring was done to all patients revealing lower E.S pressure: >10 mmHg in (53.125% & 50%), 6-10 mmHg in (34.375 & 42.857) and <6mmHg in (12.5 & 7.143) of patients in both groups respectively. Also, residual relaxation pressure was: 2-3 mmHg in (28.125 & 28.571%), 1-2 mmHg in (15.625% & 25%) and <1mmHg in (56.25% & 46.429%) of patients in both groups respectively. Esophageal body function was normal in all patients.

Same surgical procedure was followed in both groups A & B, Floppy Nissen fundoplication, and on comparing operative data gained from both groups respectively, the results gained were as follows : The mean operative time 93 & 125 minutes, mean period of hospital stay 7.8 and 5.5 days.

The study of post operative complications in both groups revealed the following : Chest infection 12.5% & 10.714% wound infection 12.5% & 7.148%. Incisional hernia 6.25% & 0%. And pneumothorax 0% & 3.571%. There was no mortality among both groups.

Symptomatic improvement gained by surgery in both groups during one year follow up regulated 1 month, 3,6 and 12 months postoperatively, was as follows respectively; (28.125% & 35.714%), (46.875% & 64.285%), (81.25% & 71.42%) and (84.375% & 82.143%).

Endoscopic mucosal improvement was recorded throughout the same schedule in both groups respectively; (6.25% & 3.571%), (21.875 % & 28.517%), (37.5 & 42.857%), and (40.62% & 46.428%).

Postoperative morbidity in both groups, were recorded respectively as follows: Dysphagia; 12.5% & 10.714%, gas bloat syndrome; 15.625% & 21.429%, nausea; 6.25% & 10.714%, diarrhea; 3.125 & 3.571% and persistence of respiratory symptoms; 15.625% & 14.286%.

On comparing the results gained from both groups, there were no statistical difference between both groups denoting that such procedure, Nissen fundoplication with relatively low complications and morbidity, can be considered as a satisfactory method for controlling GERD, especially if the advantages of minimally invasive technique are added for the sake of patients.

## **CONCLUSION**

We conclude from this study that :

- Heartburn and regurgitation are the most frequent symptoms of GERD as they are considered to be the typical symptoms of reflux.
- The presence of regurgitation indicates more severe disease.
- The future for 24 hour pH esophageal monitoring is bright, as it has the potential to do for the diagnosis of GERD what endoscopy has done for the diagnosis of peptic ulcer.
- LES pressure hypotonia has a major role in the pathogenesis of GERD.

- Both the frequency and duration of esophageal acid exposure are the most common factor, determining the development of reflux esophagitis.
- The Nissen fundoplication has been shown to be an effective means of attaining mucosal healing usually accompanied by symptomatic relief. The use of "loose wrap" performed over a large bore dilator avoids the post-operative complications such as dysphagia and gas bloat.
- Laparoscopic Nissen fundoplication combines the efficacy of the well established Nissen procedure with advantages of minimally invasive technique in the treatment of patients with severe gastroesophageal reflux disease. When this procedure is performed by an experienced hand, the technique is extremely safe and associated with a high success rate.

### **RECOMMENDATION**

- 1. Any patient with GERD not responding to medical treatment better to shift to surgery to avoid permanent esophageal mucosal changes.*
- 2. Esophageal manometry and pH study should be done to all patients before surgery to ensure the surgical success.*
- 3. Laparoscopic or conventional Nissen's fundoplication shows equal postoperative results.*