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# **Research Article**

## WHAT THE ANTI-REFLUX SURGERY IDEAL?

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#### **ABSTRACT**

Indroduction: The continuous innovations in the medical field and the advent of minimally invasive surgery they have changed substantially in the marl-bed surgical treatment of upper gastrointestinal diseases. A better understanding of the pathophysiology of GERD and the advent of minimally invasive surgery have laid the foundations to find the ideal antireflux. Purpose of this study is through the evaluation of our results identify the parameters that constitute the foundations of this plastic ideal antireflux. Materials and methods As of January 2005 to December 2013 at the II Clinical Surgery and digestive surgery department of general surgery and specialized company polyclinic II University of Catania underwent a functional study to the intervention of plastic antireflux for GERD n 66 patients (27 males, n 39 women aged between 42-57 years, mean age 49.5) the total or partial plastic choice was due to the clinical picture of the results the total or partial plastic Choice was due to the clinical picture. In the presence of severe dyskinesia proportional to the degree of esophagitis it is a total plastic been implemented necessary. The dyskinesia with distal esophageal amplitude of less than 40mmHg is a partial antireflux plastic was implemented. Discussion In the presence of GERD not obstructive The distinction of patients with and without disfagia is not possible because there is no difference of esophageal motor framework, and a differentiation occurs during meals for the presence of continuous waves not propelling the distal esophagus Singh medical antisecretory therapy is not able to block the progression from metaplasia to dysplasia in patients with Barett. The asserts an increased risk of 8 times in patients in which the regurgitation, and heartburn occurring once a week is. Therefore logical to assume in light of the results obtained as a blocking GERD through effective antireflux it prevents more serious illness. Conclusions In GERD fundoplication arises as a necessary and effective for the purpose of blocking the natural history of the disease through an antireflux

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# INTRODUCTION

The continuous innovations in the medical field and the advent of minimally invasive surgery have changed substantially marl-surgical treatment of diseases of the digestive tract superior (31). In one savary miler and study in patients with esophagitis from I to stage III 23% needed the 'definitive intervention, a further 23% in patients with grade IV presence of columnar metaplasia (30) .i data presented show us how reflux disease the patients undergoing medical therapy have a benign evolution in 77% of cases the remaining 23% has an evolving poor. GERD in its varied range of clinical manifestations is considered a submerged disease In the USA 15% of the population report suffering of the typical signs of reflux disease

making regular use of anti acids which are associated with patients with atypical symptoms and esophageal extra thereby increasing the socio-economic dimensions of GERD.(29) the castles pyramid summarizes the epidemiological reality in which the 90% of patients constitutes the pyramid with a severe moderate symptomatology which is associated with a difficulty of classification of the same both from the diagnostic point of view that therapeutic, with a cheapening of recurrent clinical forms leave to their evolutionary destiny or towards the stenosis, or towards the barrett which results in the occurrence of 'adenoca. L 'EDGS plays a decisive role to confirm the absence of an organic pathology but GERD is a functional disorder which results endoscopic is totally inadequate. The collaboration with the pathological anatomy is essential both to confirm: inflammatory processes, stenosis that may hide early

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tumor and Barrett .The functional test of manometry and pH metric establish both the esophagus feature that the amount of gastroesophageal reflux necessary to purposes of determining the parameters of the surgical treatment of antireflux whether total (360  $^{\circ}$  are the esophageal body is normal or 270  $^{\circ}$  if the esophageal body is dyskinetic) or partial. in the assessment of disease hiatal hernia is the most common radiographic finding (Fig 5) 50% of the adult population, Patti shows that with the increase in the size of the hernia MISUSE compromises the functioning of the lower sphincter increase ultimately the exposure time of mucosa. Kahrilas et al claim as a dyskinesia with distal esophageal amplitude greater than 30 mm Hg, and similar to the delayed esophageal emptying. In three pathophysiological model are certain factors to the phenomenon of reflux esophageal esophagus (dyskinesia with ineffective peristalsis), the lower esophageal sphincter (hypotensive), and stomach (marked depletion delay) .the antireflux surgery is not able to correcting all three factors and therefore should be assessed three components that make up the esophageal reflux before considering any therapeutic treatment .Hubert and stain assessed the different weights of the three components that promote GERD 45% was borne disease sphincter lower esophageal, 19% in combination dyskinesia and esophageal sphincter, 12% esophagus and delayed emptying gastric. The remaining 24% a combination of three factors. (Short esophagus sphincter hypotension, dyskinesia). (27, 28) these components are added other factors important to the proper functioning of esophageal. Gravity (bolus propulsion deficiency), salivation (with neutralization of the left in the esophagus), anchoring in the abdomen. (Hernia and gastric dilatation that reduce both the length and the esophageal pressure). thus demonstrating that the esophageal sphincter hypotension and other factors discussed are the major cause of GERD leads to determine that a surgical treatment can be considered an obvious choice because it is able to return the pressure needed to form a functional barrier in defense of ' protective .the action esophagus diaphragmatic pillars which are an extension of the lower esophageal sphincter are essential elements of the gastroesophageal junction the same with their contraction increases the pressure of the junction reaching effectively opposing 150mmhg to abdominal pressure gradient .the mechanism of relaxation of the pillars not is still defined, but clinical observation is a serious GERD hypotensive sphincter associated with an altered functional framework esophageal .for framework lays as GERD is a many factorial mechanism they interact the lower esophageal sphincter, peristalsis, the body clearance,. For the study of these parameters we have been used different survey methods: the manometry esophageal used after fasting continued for at least eight hours, with the suspension of medications (25,26)

### **MATERIALS AND METHODS**

January 2005 to December 2013 at the II Clinical Surgery and digestive surgery department of general surgery and specialized company Polyclinic II University of Catania underwent a functional study for the plastic surgery for antireflux n 66 GERD patients (27 males, n 39 women aged between 42-57 years average age 49.5) in patients evaluated, both Ph metry (showed pathological reflux), which manometry (dyskinesia with peristalsis ineffective) and EDGS. (Fig 1, 2,3,4)



Fig 1 Esophagitis I







Fig 2 Esophagitis II



Fig. 4 Barett

Confirmed the indication for surgical treatment. In 67% of GERD was associated with a hiatal hernia (fig 5.6)

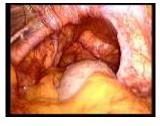


Fig 5 sliding hiatus



Fig 6 EDGS hernia hiatus hernia

The surgery conducted laparoscopic always begins with the separation of the esophagus and esophageal junction, for diaphragmatic pillars with the creation of a large window esophageal back, the next time a gra- stomach mobilization with division of short vessels. reconstructive phase was characterized by the closure of the diaphragmatic pillars leaving 1 cm discovered by diaphragmatic suture at the top just below the esophagus, stomach mobilization of the fund to the backside of the stomach, placement of 3 stitches which may include esophageal muscles rear fixation the already sutured pillars, fixation coronal to the diaphragm and esophagus (Figure 7,7,bis ,8,9)

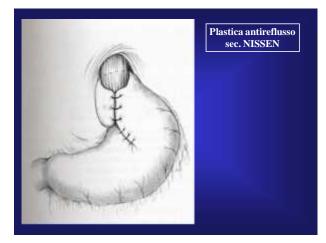


Fig 7 Plastic reflux Nissen

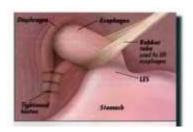


Fig 7 bis two or three points placed around the esophagus.

To reinforce the hiatus



Fig 8 Plastic reflux Dor

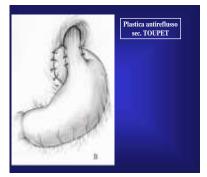


Fig 9 Plastic reflux Toupet

## **RESULTS**

The results obtained are in Table 1 illustati

Table 1 plastic antireflux results

antireflux	disappearance of heartburn	f dysphagia
Nissen -Rossetti	68% of the cases	present for 3 months
Nissen	89% of cases,	absent in 99%
Partial Nissen	92% of cases	present with expansions and complete remission
Sec Dor	91% of cases	absent in 99%
Sec Toupet	89% of cases	absent

The total or partial plastic choice was due to the clinical picture. In the presence of severe dyskinesia proportional to the degree of esophagitis is a total Plastic been implemented necessary. The dyskinesia with distal esophageal amplitude of less than 40mmHg is a partial antireflux plastic was implemented. Then in the presence of GERD in association with bronchial asthma, and Ernie simple and complex hiatal a gra-total or partial antireflux indifferently. The operative time was in average of 120 minutes the average hospital stay of 60 hours, and after approximately 28 hours is fed, in 2 cases it is converted back to the partial plastic in total for the persistence of reflux after 30 months of I ° intervention. The results obtained indicate that in the presence of a sintomalogia overt antireflux plastic in a lasting manner controls the typical

symptoms. In the presence of non-obstructive dysphagia (absence of peptic esophageal strictures of nature) surgical treatment of antireflux in our experience worse dysphagia. The follow-up endoscopic control at 5 years showed an intact mucosa with absence of reflux. Finally all patients with dysplasia. The sequential esophagogastroduodenoscopy is indicated only in case of Barrett's esophagus

### DISCUSSION

In the presence of GERD not obstructive The distinction of patients with and without dysphagia is not possible because there is no difference of esophageal motor framework, and a differentiation occurs during meals for the presence of continuous waves not propelling the distal esophagus (21,22,23,,24) Singh. Despite the presence of effective drugs that reduce stomach acid secretion these patients are characterized by the presence of a hypotensive lower esophageal sphincter that allows the passage into the esophagus to acid and alkaline solutions. The damage to the esophageal mucosa occurs with gastric contents with pH 2 or inf sup 7 (17,18,19,20,) The clinical implications are that the gastroduodenal reflux is more harmful than the acid developing more serious complications. As the reflux damages the squamous mucosa that follows metaplasia in the glandular mucosa of the cardia type, the proton pump-based medical treatment raises critical because of the length depending on the reduction of chronic reflux. the continued control on acid secretion increases the level of gastrin hormone that the latter possesses trophic effects on the stomach and the colon that often result in a significant bacterial growth, which is accompanied by the gastric atrophy with the interference in the absorption of the vitamin b12 .(13,14,15,16) The results of these processes can trigger carcinogenesis, therefore the safest way to prevent the onset of episodes acid reflux predisposing to cellular proliferation is formed by the antireflux treatment. The objectives of this surgery are: stop the early gastroesophageal reflux, obtaining a regression of the intestinal epithelium formed, creating the basis of this process, finally get an arrest progression diplasia versus cancer. The medical antisecretory therapy is not able to block the progression from metaplasia to dysplasia in patients with Barett. (10,11,12) Langeren asserts an increased risk of 8 times in patients in which the regurgitation, and heartburn occurring once a week .Therefore is also logical to hypothesize in the light of the results obtained as a blocking GERD through effective antireflux it prevents more serious illness. (7.8.9,) The antireflux surgery in relation to results is able to restore the normal function of the lower esophageal sphincter. Blocking any type of acid reflux is that bile or mixed. Fundoplication is certainly to be preferred since it is ultimately more effective and durable control of reflux, as shown by the results obtained in our experience(4.5.6) Particular attention is being paid to ta risk factors such as young age, chronicity of symptoms, persistent esophagitis, an SEI hypotensive, a mixed reflux, for the purpose of identifying patients requiring antireflux plastic. Complete remission in patients with presence of metaplasia was obtained with treatment Nd-YAG laser for the purpose of preoperative ablation columnar epithelium and subsequent natural replacement of the squamous epithelium. The problem that arises is when to intervene and durability of fundoplication able to get the results discussed thus breaking the cascade of events

toward the adenocarcinoma. (1,2,3) The direction we post to MISUSE surgery is that of the early clinical confirmation of GERD, then in the presence of a mild diplasia the ablative therapy with Nd YAG laser is to be preferred, then in the presence of a severe dysplasia (ca situ) in which they were already activated the genetic modification of the cell transformation, the intervention of partial oesophagectomy trans hiatal may represent a possible viable alternative care. Although the AA are not in agreement, our orientation of such treatment is that in such cases the diagnostic certainty for which it is necessary to subject the patient to a diagnostic protocol that provides a anti secretory treatment for 8-10 weeks, to ensure the presence of anti-inflammatory effects, double-diagnostic findings of pathological anatomy with biopsies every 2cm above and below the cardia, ecoendo to evaluate further arre Barett. The finish diagnostic procedure in the absence of adenoca endoscopic surveillance is the presence of radical esophagectomy for cancer.

## **CONCLUSIONS**

In GERD fundoplication arises as a necessary and effective for the purpose of blocking the natural history of the disease through a plastic .the anti-reflux surgical technique is able to restore the normal function of the lower esophageal sphincter. endoscopic fundoplication with its Magnivision compared to medical antisecretory therapy is superior and lasting protecting the esophagus from any effluent material. The indications for treatment were identified and evaluated with excellent results. The success of fundoplicato implemented in surgical techniques have seen how the intervention is related to the presence of obvious symptoms and patients who do not respond to medical therapy continues to ceilings dosages with IPP, especially in cases where persists complicated regurgitation possibly extraesofageal events, with the nonobstructive failure in the presence of dysphagia,. It remains to clarify the issue of the presence of dysplasia resolvable through a genetic evaluation of the material taken action to clarify whether we are in the presence of the cellular cascade that leads ineluctably to tumor transformation in such cases in our opinion a radicalization of surgical treatment is justified.

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