

Esophageal Reconstruction with the Stomach, a Functional Dilemma?

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Abstract

Background: A few decades ago, esophageal substitution was mainly dedicated particularly in post-caustic esophageal stenosis; currently, the reconstruction has expanded its palette of indications to other areas of benign esophageal pathology (severe motor disorders, esophageal achalasia with multiple relapses, peptic stenosis, etc.) but has also become a quasi-obligatory final time in the esophagectomy for cancer whenever it is possible. The techniques of esophageal reconstruction using the stomach, regardless of the indication and the chosen technical option, remain a valuable and effective method. A number of striking arguments advocate for one or another type of gastric graft: anatomic factors more than convenient (vascularization, sufficient length, a wall structure favorable for suture, etc.) and a sustainable surgical intervention (length, approach, complexity of the surgical steps digestive disorders after surgery, post-therapeutic functionality, etc.). Choosing a technique or another, beyond pathological arguments, should take into account remote functionality, with a clear impact on metabolic status and quality of life. So, according to this criterion, can we functionally justify a type or another of gastric restoration? Finally, the proof of an adequate solution is relatively easy to appreciate: has swallowing been restored and if so, the result has been maintained over time? For oncological cases, the assessment should also take into account the chronological criterion of the postoperative survival rate.

Methods: The statistically rated lot ranged from 1981 to 2016 and included 268 patients with surgical interventions for esophageal stenosis, distributed according to etiopathogenesis and indication in 201 reconstructions for post-caustic stenosis, and 67 for post-esophagectomy replacement for neoplasm. The techniques used for remote functional evaluation included: barium swallow, endoscopy + biopsy, and in cases with obvious changes pH measurement/24 h and manometry and, only in exceptional cases, scintigraphy with marked foods.

Results: two types of problems have been identified: a particular type of neuro-motor dysfunction of the esophageal substitute in 6 patients (1 patient with Gavriliiu reconstruction and 5 with Nakayama reconstruction, using the whole stomach), with difficulty, delayed gastric graft evacuation, with major stasis and abdominal discomfort vomiting, inability to eat, aspiration phenomena) respectively a reflux pathology - 8 patients, being proved by a specific simptomatology, barium lunch, endoscopic examination and pH-metric examination. Reflux was alkaline in 7 patients, all with pyloroplasty, 5 with whole stomach and 2 with Akiyama procedure; in 1 case with Gavriliiu procedure the reflux was acid.

Conclusions: Stomach is a good option in esophageal substitution. Concerning the remote results, a good functionality is found with a reasonable metabolic status. The two phenomena on which the function of the graft depends - secretory activity and motor activity - seem to be restored in time but these does not occur concurrently, the recovery of the secretory function being much faster.

Key words: esophageal reconstruction, gastric graft type Nakayama, Akiyama, Gavriliiu, functional post-reconstruction complications