

Endoscopic classifications of esophageal changes in chagasic megaesophagus

Letter to the Editor

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Abstract: The objective of this report is to propose a classification of endoscopic changes for chagasic megaesophagus based on macroscopic findings. Thirty patients with advanced megaesophagus surgically treated using the Doria Serra technique (1968) [3] were enrolled in this quasi-randomized study. All participants were treated in the Surgical Department of Hospital de Base of the Medicine School in São José do Rio Preto (FAMERP), Brazil from January 1995 to December 1999. The ages of the 17 male (56.6%) and 13 female (43.3%) patients ranged from 38 to 71 years. All participants were submitted to esophagogastroduodenal endoscopy with the following classification being proposed: mild, moderate and severe esophagitis. The current study demonstrates a correlation between the classifications of endoscopic changes and the degree of histological alterations of the esophageal mucosa in chagasic megaesophagus. Thus, this is a novel option for endoscopic evaluation of patients with this disease.

Keywords: *Chagasic • Megaesophagus • Classification • Endoscopic*
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1. Letter to the editor,

Megaesophagus is one manifestation of Chagas disease; surgical treatment is the approach that yields the best results [1]. Chagas disease is caused by infestation with the parasite *Trypanosoma cruzi*, which can cause a reduction in innervation of the esophageal muscle in patients with megaesophago [2], the end-stage of achalasia cardiae [3]. Of the significant number of complications that patients with achalasia experience, reflux esophagitis is most important [4]. Endoscopy is used to evaluate the mucosa and identify inflammatory and neoplastic processes [5].

No specific endoscopic classification has been accepted for chagasic megaesophagus; the mechanism involved is different from that of reflux because the

damage to the mucosa is caused by food stasis and not to esophageal reflux. The objective of this report is to propose a classification of endoscopic changes for this disease based on macroscopic findings.

Thirty patients with advanced megaesophagus who had been treated surgically using the Doria Serra technique (1968) [6] were enrolled in this quasi-randomized study. All participants were treated in the Surgical Department of Hospital de Base of the Medicine School in São José do Rio Preto (FAMERP), Brazil from January 1995 to December 1999. The ages of the 17 male (56.6%) and 13 female (43.3%) patients ranged from 38 to 71 years.

All participants were submitted to esophagogastroduodenal endoscopy. The following classification was proposed for esophagitis in chagasic megaesophagus

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Figure 1A. Endoscopic view of mild esophagitis in operated megaesophagus. Note slight fading of the submucosal vessels



Figure 1B. Endoscopic view of moderate esophagitis in operated megaesophagus. The mucosa is pale with diminished submucosal vessels

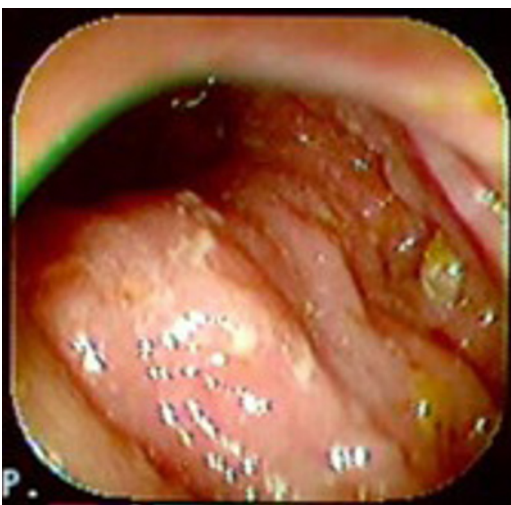


Figure 1C. Endoscopic view of moderate esophagitis in operated megaesophagus. The mucosa is thick with folds and the submucosal vessels are not evident

from April 2000 to December 2000: mild, moderate and severe esophagitis as illustrated in Figure 1A, B & C. These patterns were then compared with endoscopic changes characterized as mild, moderate and severe by histological evaluation. The kappa agreement method was utilized for statistical analysis.

This study was approved by the Research Ethics Committee in March 2000 (number 06021/99 13).

An endoscopic analysis of the esophageal mucosa of operated patients showed that 21 (70%) cases presented mucosae with an endoscopic aspect of mild inflammation, 5 (16.6%) of moderate and 4 (13.3%) of severe inflammation (Table 1).

Table 1. Correlation between the endoscopic and histological aspects of the mucosa

Alterations	Mild esophagitis	Moderate esophagitis	Severe Esophagitis	Total number of patients
Endoscopy	21	5	4	30
Histology	19	6	5	30

The comparison between the endoscopic and histological examinations gave a kappa coefficient of 0.80 (95% CI: 0.59 – 1.0), ranging from a substantial to an almost perfect agreement (Table 2).

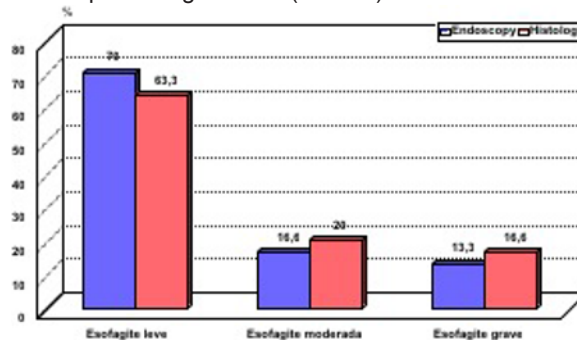


Table 2. Correlation between the endoscopic view and histological examination of the mucosa, showing a substantial to an almost perfect agreement kappa coefficient of 0.80

The current study demonstrates a correlation between the classifications of endoscopic changes and the degree of histological alterations of the esophageal mucosa in chagasic megaesophagus. Thus, the results of this study provide a novel option for endoscopic evaluation of patients with this disease.

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