The Prevalence of Clinically Significant Endoscopic Findings in Outpatients with Dyspepsia

LAMIAA A.A. EL-HABAB, M.Sc.; MOHAMED M. EL-BEDEWY, M.D.; MOHAMED A. TAWFIK, M.D. and HANAA I. OKDA, M.D.
The Department of Internal Medicine, Faculty of Medicine, Tanta University

Abstract

Background: Dyspepsia is a common clinical problem. More patients with dyspepsia have no detectable lesion. Organic causes of dyspepsia only detected by endoscopy if suspected by age or alarm features.

Aim of Study: To evaluate the prevalence of significant endoscopic findings and use alarm features and the age in outpatients with dyspepsia in predicting the presence of Significant Endoscopic Findings (SEFS).

Patients and Methods: This is cross-sectional observational study was carried out in Tanta University Hospitals Internal Medicine Department on one hundred Egyptian outpatients with dyspepsia in the period from July 2017 to January 2018. All patients enrolled in this study were subjected to upper gastrointestinal endoscopy, and histopathological examination to suspected cases only.

Results: Our study showed that the prevalence of SEFS in dyspepsia patients was 25%, mostly found in patients who were old age and or had alarm features. The most common endoscopic abnormality was non erosive gastritis (73.2% n 37), followed by small HH (70.9% n 35), class A esophagitis represent (16.8% n 8), gastric ulcer disease was found in (17% n 11), Malignancy was found in only (6.4% n 3), erosive esophagitis was found in (6.4% n 3), sever gastritis was found in (12.8% n 6) and sever doudonitis in (4.3% n 2).

Conclusion: The study showed the low prevalence of SEFs, and no need for endoscopy in young patients with no alarm features and they can be managed by non-endoscopic approach. However, it is highly recommended in all patients represented with alarming symptoms.

Key Words: Dyspepsia – Significant Endoscopic Findings (SEFS) – Alarming features.

Introduction

DYSPEPSIA is a poorly characterized syndrome thought to originate from anatomic or functional disorders of the upper Gastro-Intestinal Tract (GIT). It is a chronic, recurrent abdominal pain or discomfort in upper abdomen [1,2].

Dyspepsia mostly represented with symptoms of epigastric pain, burning, early satiety, bloating upper abdomen, fullness or nausea. And it is a wide spread disorder that affect 25-35% of the United States (US) population. It reflects most of population that seek health care and it has a huge economic cost to patient and health care system [3-5].

Functional dyspepsia according to Rome IV criteria is de find as symptoms for at least 3 months with onset at least 6 before one or more of the following criteria: Post fullness, early satiety, epigastric pain, epigastric burning and no evidence of structural disease that can explain the symptoms [6].

Symptoms of dyspepsia alone do not reliably identify individuals with malignancy or other important upper GIT pathology. So, patient age and alarm features have been used to categorize patient with dyspepsia who may harbor true pathology that may be found with endoscopy. So patient with new onset of dyspepsia after age of 55, those with symptoms and signs of dyspepsia and or presented with alarming symptoms as bleeding, weight loss, dysphagia and early satiety are advised to undergo initial endoscopy [7] as they called high risk patients with dyspepsia to exclude organic pathology as malignancy and peptic ulcer diseases. Large proportion of low risk patients with dyspepsia who are younger than 55 years of age and with no alarm symptoms to use a trial of PPI or H. pylori test prior to endoscopy [8].
The prevalence of significant endoscopic finding using the broad definition of dyspepsia is 27.5% or 18% when using ROME criteria [9] and the endoscopic findings in patient with dyspepsia may be peptic ulcer (11%), erosive esophagitis (20%), malignancy, stricture or finding requiring no specific therapy [10].

Patients and Methods

This cross-sectional observational study carried out at Tanta University Hospitals in Internal Medicine Department in the period from July 2017 to January 2018. One hundred Egyptian outpatients with dyspepsia, of both sex and at least 18 years old with dyspepsia were included. Exclusion criteria: Patients not fit for endoscopy as cardiac, chest or chronic kidney disease patient and patient of dyspepsia due to other disease as DM. An informed consent was taken from participant and the study was approved by Tanta Faculty of Medicine Ethical Committee.

Data collection:

All patients enrolled in this study were subjected to the following:

Complete history taking including age, special habit as smoking, drug history of H2 blocker, anticoagulant and anti platelets and history of alarm features as vomiting, weight loss, dysphagia, anemia, bleeding.

Clinical examination with special emphasis on gastrointestinal system.

The following laboratory investigations as H. pylori antigen in stool and complete blood picture.

Upper gastro intestinal endoscopy, and histopathological examination to suspected legions.

Statistical analysis [11,12]:

Statistical presentation and analysis of the present study was conducted, using the mean, standard deviation and chi-square test by SPSS V.20. Chi-square: The hypothesis that the row and column variables are independent, without indicating strength or direction of the relationship. Pearson chi-square and likelihood-ratio chi-square. Fisher's exact test and Yates' corrected chi-square are computed for 2 X 2 tables, a p-value less than 0.05 was considered statistically significant.

Results

Analysis of the results:

Our study showed that the prevalence of Significant Endoscopic Findings (SEFS) in patients with dyspepsia was 25% n=25 and patients without SEFS were 75% n=75, in our study the mean age of patients with dyspepsia was 40.69 ±14.28 years, of them 77 patients were younger than 55 years, of them 62 patients have no SEFs with ratio (82.7%), on the other hand 23 patients were more than 55 years of them 13 patients have no SEFS with ratio (17.3%) of all patient with no SEFS and 10 patients have SEFS with ratio (40%) of all patient with SEFS so we found significant relation between SEFS and the age p-value (0.020). Patients who were less than 55 years old and have no alarm features were 44 patients, of them only 3 patients have SEFS (6.8%) and patients who were less than 55 years old and have alarm features were 33 patients of them only 12 patients have SEFS (36.4%) and patients who were ≥55 and have no alarm features were 9 patients of them one patient have SEFS but patients who were ≥55 and have alarm features were 14 patients of them 9 patient have SEFS (64.3%), the presence or absence of alarm features was significantly associated with SEFs among the main age categories <55, ≥55 with p-value (0.001 and 0.012) respectively as shown in (Table 1) and Figs. (1,2), we have 64 patients were female of them 14 patients have SEFS (21.9%) but 36 patients were males of them 11 patients have SEFS (30.6%) so there was statistically non-significant association between sex and SEFS (p-value 0.336), smokers were 14 and 7 of them have SEFS with ratio (28%) (p-value 0.020) as in (Table 2), Fig. (3), dyspepsia patient who were on NSAID were 21 and 10 of them had SEFS with ratio (40%) and 11 patients had no SEFS (14.7%) (p-value 0.007) (Table 3), Fig. (4), H. pylori status was positive and treated prior to endoscopy in 6 patients, negative in 54 patients, and positive and untreated prior to endoscopy in 40 (40%) of patients and the ratio of SEFS in positive and negative patient was respectively 52%, 48% (p-value 0.181), as regard alarm features vomiting was reported in 26 patients of them 11 patients had SEFS (42%) and 15 patients had no SEFS (57.7%) (p-value 0.716), weight loss was reported in 11 patients of them 8 patients had SEFS (72%) and 3 patients had no SEFS (27.3) (p-value 0.033), anemia was reported in 18 patients of them 11 patients had SEFS (61.1%) and 7 patients had no SEFS (38.9%) (p-value 0.074), Hematemesis and Melena (H & M) was reported in 4 patients of them 3 patients had SEFS (75.0%) and 1 patient had no SEFS (25.0%), patient with no H & M were 43 of them 18 had SEFS (41.9%) and 25 had no SEFS (58.1%) so H & M as alarming features had no statistically significant association with SEFS (p-value 0.227), Dysphagia was reported in 8...
patients of them 4 patients had SEFS (50%) and 4 patient had no SEFS (50%) \((p\)-value 0.740) among all patients 75 patients (75%) had minor endoscopic abnormality, and only 25 patients (25%) had significant endoscopic findings. These were more likely to be found in patients with alarm features compared to those without any alarm features (84% versus 16% \(p\)-value \(0.001\)), as in (Table 4) and Fig. (5), as regard endoscopic findings gastric ulcer was reported in 11 patients 8 of them had alarm features (17%), duodenal ulcer was present in 2 patients one of them had alarm features (2.1%), reflux grade A was present in 8 patients 7 of them had alarm features (14.9%), erosive esophagitis was present in 3 patients the 3 had alarm features (6.4%), malignancy was present in 3 patients all of them had alarm features (6.4%), one patients had gastric adenocarcinoma, one had GIST tumor, one had MALT lymphoma. Sever gastritis was reported in 6 patients all of them had alarm features (12.8%), mild duodinitis was reported in 9 patients 6 of them had alarming features (12.8%), sevar duodinitis was reported in 2 patients all with alarming features and HH was reported in 35 patients 20 of them with alarming features (42.6%).

Table (1): Significant endoscopic findings in patients with and without alarm features according to age.

<table>
<thead>
<tr>
<th>Age type</th>
<th>Alarm features</th>
<th>Total</th>
<th>(p)-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;55</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Significant findings:</td>
<td>No:</td>
<td>Yes:</td>
<td>Total</td>
</tr>
<tr>
<td>N</td>
<td>41</td>
<td>21</td>
<td>62</td>
</tr>
<tr>
<td>%</td>
<td>93.2%</td>
<td>63.6%</td>
<td>80.5%</td>
</tr>
<tr>
<td>Yes:</td>
<td>N</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>%</td>
<td>6.8%</td>
<td>36.4%</td>
<td>19.5%</td>
</tr>
<tr>
<td>Total:</td>
<td>N</td>
<td>44</td>
<td>33</td>
</tr>
<tr>
<td>%</td>
<td>%</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

55:

<table>
<thead>
<tr>
<th>Significant findings:</th>
<th>No:</th>
<th>Yes:</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>8</td>
<td>5</td>
<td>13</td>
</tr>
<tr>
<td>%</td>
<td>88.9%</td>
<td>35.7%</td>
<td>56.5%</td>
</tr>
<tr>
<td>Yes:</td>
<td>N</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>%</td>
<td>11.1%</td>
<td>64.3%</td>
<td>43.5%</td>
</tr>
<tr>
<td>Total:</td>
<td>N</td>
<td>9</td>
<td>14</td>
</tr>
<tr>
<td>%</td>
<td>%</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

\(\times\) Significant \((p<0.05)\).

Table (2): Smoking characters in patients with dyspepsia and association with SEFS.

<table>
<thead>
<tr>
<th>Smoking</th>
<th>No</th>
<th>Yes</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>No:</td>
<td>N</td>
<td>68</td>
<td>18</td>
</tr>
<tr>
<td>%</td>
<td>90.7%</td>
<td>72.0%</td>
<td>86.0%</td>
</tr>
<tr>
<td>Yes:</td>
<td>N</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>%</td>
<td>9.3%</td>
<td>28.0%</td>
<td>14.0%</td>
</tr>
<tr>
<td>Total:</td>
<td>N</td>
<td>75</td>
<td>25</td>
</tr>
<tr>
<td>%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

\(\times\) Significant \((p<0.05)\).
Table (3): Significant endoscopic findings in studied patients with and without nonsteroidal anti inflammatory drugs.

<table>
<thead>
<tr>
<th>NSAID</th>
<th>Significant findings</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>No:</td>
<td>N 64</td>
<td>15</td>
</tr>
<tr>
<td>%</td>
<td>85.3%</td>
<td>60.0%</td>
</tr>
<tr>
<td>Yes:</td>
<td>N 11</td>
<td>10</td>
</tr>
<tr>
<td>%</td>
<td>14.7%</td>
<td>40.0%</td>
</tr>
<tr>
<td>Total:</td>
<td>N 75</td>
<td>25</td>
</tr>
<tr>
<td>%</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Chi-square: $\chi^2=7.253$  
$p$-value: 0.007*

*: Significant ($p<0.05$).

Table (4): SEFS in patient with and without alarm features.

<table>
<thead>
<tr>
<th>Alarm features</th>
<th>Significant findings</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>No:</td>
<td>N 49</td>
<td>4</td>
</tr>
<tr>
<td>%</td>
<td>65.3%</td>
<td>16.0%</td>
</tr>
<tr>
<td>Yes:</td>
<td>N 26</td>
<td>21</td>
</tr>
<tr>
<td>%</td>
<td>34.7%</td>
<td>84.0%</td>
</tr>
<tr>
<td>Total:</td>
<td>N 75</td>
<td>25</td>
</tr>
<tr>
<td>%</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Chi-square: $\chi^2=18.319$  
$p$-value: 0.001*

*: Significant ($p<0.05$).

**Discussion**

Dyspepsia is an important, common and demanding clinical problem. According to the international consensus meeting, dyspepsia is defined as pain or discomfort centered in the upper abdomen that is in or around the midline. It has been described as a negative sensation that can incorporate a wide variety of symptoms including bloating, early satiety, fullness, burning, nausea, continuous or intermittent vomiting [13-15]. This set of symptoms can be the manifestation of different organic, systemic or metabolic diseases (organic dyspepsia) or it may have no evident cause (functional dyspepsia). Thus, endoscopy of upper gastrointestinal tract is a safe and easily carried out procedure of high diagnostic value and also a therapeutic value in some cases [15]. In our study which conducted in Gastroenterology Outpatient Clinics and Endoscopy Unit at Tanta University Hospitals and
included one hundred outpatients of dyspepsia of which some had alarm features and risk factors and others were free, the mean age of our study patients was 40.69±14.28 years and this is in concordance with study by Khaled A et al., [16] in his study that assessed the prevalence of clinically significant endoscopic findings in outpatients of dyspepsia in which the mean age was 48.4 years ± 12.6 years and this may lead to near results of both studies.

In the present study most patients were female (64%) and (36%) were males this opposite to study conducted by Ahmed G et al., [17] who studied the endoscopic evaluation of patients with dyspepsia in a secondary referral hospital in Egypt, male sex was predominant (51%) but the result was low prevalence of SEFS as our study (35%) and most population based studies showed that frequency of Uninvestigated Dyspepsia (UD) was not related to gender.

In the present study we found that there was a low prevalence of significant endoscopic findings (25%) in outpatients with dyspepsia and the majority of these were found in patients with alarming features, significant endoscopic findings were found in patients with alarming features compared to those without any alarm features (84% versus 16% p-value <0.001) and this is the same as the study conducted by Khaled A et al., [16] in his study that assessed the prevalence of clinically significant endoscopic findings in outpatients of dyspepsia, showed only 66 (10.2%) patients had significant endoscopic findings mostly found in patients with alarming features compared to those without any alarm features (12.6% versus 5.4%, p-value 0.004) and this the only study correlated between the presence of significant endoscopic findings and the presence of alarming features before our study and it showed the same result.

The present study show strong association between Non Steroidal Anti Inflammatory Drugs (NSAID) and Significant Endoscopic Findings (SEFS) (p-value 0.007) and this also with the study conducted by Robin G et al., [18] who studied the clinical and endoscopic evaluation of dyspeptic patients attending a tertiary care hospital in South India and showed that NSAID consumption was reported in 31% of the studied patients and concluded that NSAID can provoke dyspepsia and it was a contributory factor. This also showed by Abdurahaman S. et al., [19] who studied the Uninvestigated Dyspepsia (UD) and associated factors of patients with gastrointestinal disorders in Dessie Referral Hospital, Northeast Ethiopia in this study he proved that NSAIDs use is statistically associated with UD (p-value <0.001), however opposite to our study what conducted by Solomon OA et al., [20] who studied risk factors for un-investigated dyspepsia among primary care patients in northern Nigeria, showed that non significant association with NSAID and dyspepsia (p-value 0.79).

Regarding smoking our study showed significant association with SEFS p-value 0.020) and this in concordance with Khaled A et al., [16] who showed a significant association between smoking and SEFS (p-value 0.03), another study conducted by Ghosh D et al., [21] also proved that smoking had significant association with the development of reflux esophagitis, duodenal ulcer and gastric ulcer. On the other hand, Yasser Sh. et al., [22] found, that assessed the prevalence and risk factors of functional dyspepsia in a multi ethnic population in the United States and smoking not found to be a significant predictor of significant endoscopic finding (p-value 0.1).

H pylori status in our study was non significant association with SEFS. We recorded the patients whose H. pylori status was positive and were treated prior to endoscopy were (6%), negative (54%) of the patients, and positive untreated prior to endoscopy in (40%) of patients and the ratio of SEFS in positive and negative patient was respectively (52%, 48%) (p-value 0.181) and this in concordance with the study that conducted by Solomon OA et al., [20] and showed that H. pylori seropositivity was not related to the risk of developing dyspepsia. (p-value=0.10). But in disagreement of our results, other study by Abdurahaman S. et al., [19] who showed that H. pylori infection was found to be significantly associated with UD (p-value <0.001) and in the study conducted by Robin G et al., [18]. The presence of H. pylori was significantly associated with endoscopic finding but it was more among alcoholics (42%, p=0.036). So we found that the risk factors in our study, NSAIDS and smoking were more important in predicting SEFS than H. pylori infection.

The endoscopic findings in our study were gastric ulcer disease that was found in 11 of patients (17%), malignancy was found in only 3 (6.4%) patients, all of whom had one or more alarming features. One patients had gastric adenocarcinoma, one had GIST tumor, one had MALT lymphoma that was associated with H. pylori positive status and was advised to receive the treatment firstly. Erosive esophagitis was found in 3 patients (6.4%), sever gastritis was found in 6 patient (12.8%) and sever doudinitis in 2 patient (4.3%), and this near
Recommendations: but the stomach is the most frequent site of involve-
ment for this neoplasm. The site of gastrointestinal ulcer, 7 (1.5%) duodenitis and 24 (5.4%) esophag-
itis which is near our study.

The prevalence of gastritis in Sahin et al., [23] who assessed the endoscopic findings of dyspeptic patient unresponsive to proton pump inhibitors. Northern Clinics of Istanbul in 446 patients was 48.4%, 16 (3.6%) gastric ulcer, 36 (8.1%) duodenal ulcer, 7 (1.5%) duodenitis and 24 (5.4%) esophag-
itis in patient presenting with dyspepsia, significant endoscopic lesions were found in 7% of the patients in the form of gastric ulcers, and only 1% was diagnosed to have gastric cancer, mainly primary gastro intestinal lymphoma which is a rare disease, but the stomach is the most frequent site of involve-
ment for this neoplasm. The site of gastro intestinal lymphoma in all of the recent patients was the stomach.

We Concluded that:

- The problem of the evaluation and management of dyspepsia remain unresolved. Unfortunately, little data are available to guide physicians in the diagnosis and management of patients presenting with dyspepsia in the primary care setting.
- Because symptoms alone are not useful in distinguishing between causes. The patient's evaluation, including the medical history, physical examination and laboratory investigations are essential in the diagnosis.
- The physicians must decide when to treat empirically and when to refer the patient for endoscopy.

Recommendations:

We recommend that:

- As we found in our study the dyspepsia is a chronic and recurrent pain so the patient should deal with it as a chronic disease.
- Patient with age less than 55 years old and has no alarms features should be managed with symp-
tomatic treatment as PPI, anti acid and prokinetics. We should not rush for endoscopy and we should re assure the patient that mostly there is no organic pathology.
- But in patient with age more than 55 years old and or has alarms features should initially under go upper endoscopy.

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Conflict of interest: None declared.

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 معدل انتشار النتائج ذات الأهمية الطبية في مناظير الجهاز الهضمي

للمرضى المترددين على العبادات الخارجية والذين يعانون من عسر الهضم

عسر الهضم متلازمة من الأعراض التي تنشأ من الجهاز الهضمي العلوي وهو من المشاكل الطبية المنتشرة والتي تسبب 20-25% من سكان الولايات المتحدة والتي يتعرض أكثر الناس الذين يعانون للخدمة الطبية، بها تكلفة إقتصادية كبرى على المرضى وعلى أجهزة الخدمة الطبية. هو أمر مزمن ومتكرر في الجزء العلوي من البطن ويتراوح في شكل آخر في منطقة ما فوق المعدة، سرعة الشعاع، الإحصاء بإستمرار، والليل القي.

أعراض عسر الهضم قد لا تنتشر في ذاتها إلى مشكلة طبية خطيرة مثل اورام، قرح المعدة، المعدة أو الإلتهي عشر أو أي مشاكل أخرى. ولذلك سن المرض والأعراض الإدراارية الشديدة تتميز المريض الذي يكون لديه مشكلة طبية خطيرة والتي تحتاج إلى منظار جهاز هضمي. وذلك أي مريض تظهر عليه أعراض عسر الهضم المتكررة بشكل مفاجئ، بعد سن ال 55 يجب أن يفحص مبدئياً لهذا المنظار. أما عن الأعراض الإدراارية الشديدة فهي قد تكون نزيف من الجهاز الهضمي، فقدان وزن، فشل في صحة الجهاز الهضمي، فقدان وزن، فشل في صحة الجهاز الهضمي، فقدان وزن، فشل في صحة الجهاز الهضمي، فقدان وزن، فشل في صحة الجهاز الهضمي، فقدان وزن، فشل في صحة الجهاز الهضمي، فقدان وزن، فشل في صحة الجهاز الهضمي، فقدان وزن، فشل في صحة الجهاز الهضمي، فقدان وزن، فشل في صحة الجهاز الهضمي، فقدان وزن، فشل في صحة الجهاز الهضمي، فقدان وزن، فشل في صحة الجهاز الهضمي، فقدان وزن، فشل في صحة الجهاز الهضمي، فقدان وزن، فشل في صحة الجهاز الهضمي، فقدان وزن، فشل في صحة الجهاز الهضمي.

تشير لمرضى أكثر عرضة للمشاكل الخطيرة المذكورة. المريض الأقل عرضة لهذه المشاكل فهو الذي يقل سنه عن ال 55 ولا يعاني من الأعراض الخطيرة أو لم يسبق له تناول أي علاج مبدئي لميكروب المعدة أو الأدوية التي تقل من إفراز حامض المعدة.

الهدف من البحث: دراسة نسبة انتشار النتائج ذات الأهمية الطبية في مرضى العبادات الخارجية الذين يعانون من عسر الهضم وإستخدام الأعراض الإدراارية الخطيرة في التنبؤ بشكل مهنة طبية تظهر بإستخدام منظار الجهاز الهضمي العلوي.

البحث: أجريت الدراسة على مائة من المرضى البالغين الذين يعانون من عسر هضم في العبادات الخارجية في مستشفى جامعة طنطا. وقد تم إجراء الفحوصات التالية: التاريخ المرضي المفصل، ومجموعة الأعراض والمعلومات التي تachs المريض مثل السن، التدخين، وتتناول أي أدوية للمعدة التي تقل إفراز حامض المعدة أو مضادات التجلط.

فحص إكلينيك كامل، عمل تحمل الميكروب الحزوتي للمعدة عن طريق الدم، عمل صورة دم كاملة. وقد تم عمل منظار جهاز هضمي على لكل الحالات.

النتائج: غالبية الحالات التي كانت تعاني من عسر الهضم لم تظهر لها نتائج مهنة طبية وإن النتائج ذات الأهمية الطبية كانت أكثر ظهورا في الحالات التي كان عصر الهضم مصحوباً بها وبعض الأعراض الإدراارية خطيرة. وأيضاً ساءت هذه النتائج ذات الأهمية الطبية بين المرضى البالغين من العمر أكثر من خمسة سنوات مقارنة بالأعمار الصغرى.

الاستنتاج: منظار الجهاز الهضمي العلوي مهم جداً في تجديع حالات عسر الهضم المزمنة ولكنه ليس بالضرورة أن يكون أول خطوة في تشخيص الحالات ولكن يجب تهيئة المريض نفسها أنه ليس بالضرورة وجود مشكلة عضوية وإن الدراسات أثبتت أن غالبية المرضى ليس لديهم مشكلة.

ولكن: منظار الجهاز الهضمي العلوي يجب أن يكون بالضرورة أول خطوة في تشخيص المرضى الذين يعانون من عسر الهضم ولديهم أعراض إدراارية خطيرة ويناسب أكثر من خمسة وخمسون عاما.