CORRELATIONS HELICOBACTER-PYLORI STOOL ANTIGEN AND ENDOSCOPIC FINDINGS IN PATIENTS WITH PERSISTENT UPPER ABDOMINAL COMPLAINTS

By

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ABSTRACT

Background: Helicobacter pylori (H. pylori) is of major concern today because of its causal relationship with gastro duodenal disease. One half of the world's population has H. pylori infection, with an estimated prevalence of more than 90% in developing countries. Dyspepsia is a prevalent complaint in general practice and gastrointestinal clinics. Since its discovery and H. pylori was attributed for being responsible for many of upper GIT symptoms. The gold standard test for diagnosis is the upper GIT endoscopy with biopsy, however it isn't available not in all health care facilities beside its invasive nature which is not accepted by many patients.

Objective: The aim of this study was to compare the diagnostic accuracy of H. pylori antigen in stool with endoscopic finding in patients with upper abdominal symptoms.

Patients and methods: This study included 150 with upper abdominal complaints referred from outpatient as well as inpatient department who had undergone gastric biopsy during upper GI endoscopy for various dyspeptic symptoms. The cases were recruited from Liver Institute, Al Mahalla Al Kobra, Gharbia Governerate, Egypt.

Results: Regarding the presenting symptoms, the most common presenting symptom was dyspepsia (53 cases – 39.3%), followed by epigastric pain (53 cases – 35.5%). Abdominal fullness was reported in 15 cases (10%). Stool antigen test was positive in 91 cases (60.7%). Moreover, campylobacter-like organism (CLO) test was positive in 98 cases (65.3%). Endoscopy revealed no abnormality in 29 cases (19.3%). The most common encountered finding was mosaic antral appearance. Antral erosions were diagnosed in 15 cases (10%) whereas erosive gastritis was present in 13 cases (8.6%). Biopsy findings were positive in 115 (76.7%) cases and negative in 35 (23.3%) cases. As compared with results of biopsies, stool antigen test revealed 77.8% sensitivity, 90% specificity and total validity of 85%, with high significant level of agreement between the two techniques.

Conclusion: Dyspepsia is the common presentation among cases complaining from upper GIT symptoms. Stool antigen test for H. Pylori revealed high sensitivity in comparison with histopathological findings in diagnosis cases with upper GIT symptoms.

Keywords: Helicobacter-Pylori, Stool Antigen, Endoscopic Findings, Upper Abdominal.

INTRODUCTION

Gastrointestinal symptoms are highly prevalent in the general population. Dyspepsia is the most common upper gastrointestinal symptom complex with 25% of the general population suffering from dyspeptic symptoms and has great socio-economic impact *(Talley, 2017)*. The causes of dyspepsia remain uncertain and are likely to be infectious and non-infectious agents *(Riddle et al., 2016)*.

Upper GI symptoms like dyspepsia, heartburn, pain abdomen and hematemesis are some of the common complaints with which patients present to the medical outpatient clinics. It impairs the quality of life and adds to the financial burden due to repeated hospital visits and medications *(Srinivasan et al., 2016)*.

Helicobacter pylori infection is the most common chronic bacterial infection in the world. This bacterium colonizes human gastric mucosa and can elicit lifelong inflammatory and immune responses, with release of various bacterial and host dependent cytotoxic substances. It causes chronic and active gastritis, peptic ulcer disease and associated with increased risk of developing gastric cancer *(Diaconu et al., 2017)*.

In a setting where access to upper GI endoscopy is difficult or unaffordable or if the prevalence is high, it is very important for clinicians to know common causes of dyspepsia and frequency of H. pylori infection to recommend empirical eradication can rather than do nothing at all *(Said et al., 2014)*.

Numerous invasive and noninvasive diagnostic tests have been developed.

Each of the techniques has advantages as well as disadvantages which will make it more or less appropriate depending on the clinical situation. It is now clear that the discussion over the different diagnostic methods cannot be oversimplified by reasoning only in term of which is the best diagnostic tool *(Best et al., 2018)*.

The choice of diagnostic tests to determine H. pylori infection status depends on the sensitivity, specificity, reproducibility, availability, and rapidity of the results as well as the cost of the tests *(Ramis, 2017)*.

The aim of his study was to compare the diagnostic accuracy of helicobacter pylori antigen in stool with endoscopic finding in patients with upper abdominal symptoms.

PATIENTS AND METHODS

This is a cross sectional observational study designed to compare the diagnostic accuracy of helicobacter pylori antigen in stool with endoscopic finding in patients with upper abdominal symptoms.

This study included 150 patients with upper abdominal Complaints referred from outpatient inpatient department at Liver Institute, Al Mahalla Al Kobra, Gharbia Governerate, who had undergone gastric biopsy during upper GI endoscopy for various dyspeptic symptoms like pain abdomen, nausea, vomiting, belching, throat pain, and weight loss.

Inclusion criteria: Both sexes will be included, age: 18-60 years, and patients with upper abdominal symptoms.

Exclusion criteria: Age below 18 or above 60 years, patients on proton pump inhibitor or H2 blocker or prokinetics,

patients with drug history of corticosteroids and NSAIDs, and patients with previous operations as cholecystectomy and gastric resection.

A written informed consent was obtained from all participants before inclusion in the study, explaining the value of the study, plus the procedures that was commenced.

All patients were subjected to the following:

1. **Full history taking including:**

   • Demographic data: age, sex, special habits.

   • Medical history: Associated chronic diseases, and state of current disease.

   • Family history and drug history.

2. **Clinical examination:** General examination: Vital signs (Blood pressure, pulse, respiratoryrate, temperature), and abdominal examination.

3. **Laboratory measurements:** including CBC and serum antigens of H. Pylori.

4. **H. pylori stool antigen test (Moon et al., 2018):**

   • Specimen collection: Fresh stool samples were collected and were stored at –70ºC for analysis. H. pylori antigen was analyzed using the SD H. pylori antigen ELISA kit (Standard Diagnostics Inc., Yongin, Korea) according to the manufacturer's instructions.

   • Technique:

- Fecal samples were diluted with diluent, and were added with controls and a peroxidase-conjugated monoclonal antibody. After the addition, incubated for an hour at 37ºC. Washing was done to remove unbound materials. After washing, substrate was added and sent for 10 minutes of incubation. The results were read using a spectrophotometer at 450 nm. Negative result was given when the optical density (OD) of stool H. pylori antigen was ≤ the negative mean OD +0.1. Positive result was subclassified into two findings. Strongly positive result was given when OD of stool H. pylori antigen was ≥ 3.0, and a weakly positive result was given when OD was between the mean negative OD +0.1 and 3.0.

5. **Abdominal ultrasonography using real time scanning device Toshiba**, just vision 200 (SSA, 320A) with convex probe, 3-5uHz to assess the state of liver, spleen, kidneys and any other abdominal organs.

6. **Upper GIT endoscopy and biopsy Technique** *(Lee et al., 2015)*

   • Sedation: Propofol was used for a sedated endoscopy, is effective in preventing vomiting and relaxing the upper esophageal sphincter (UES).

   • Posture: Examinee (patient): The basic posture was the left lateral decubitus position, (or if they experience difficulty lying in that manner, they can be examined in the supine position). Examiner (endoscopist): EGD was

performed using the one-man standing method because it is faster.

- The endoscopic diagnosis was categorized into GERD, erosions and ulcers.

- If two or more diagnosis were present in a patient, the severest form of disease was recorded.

- The biopsy specimens were usually taken from the antrum and other location if required and sent for histological examination.

- The biopsy specimens were fixed overnight in 10% buffered formalin, processed, embedded in paraffin, and cut and stained with Hematoxylin and Eosin (H &E) and Giemsa stain.

Statistical analysis:

The collected data were coded, processed and analyzed using the SPSS (Statistical Package for Social Sciences) version 22 for Windows® (SPSS Inc, Chicago, IL, USA). Data were tested for normal distribution using the Shapiro Walk test. Qualitative data were represented as frequencies and relative percentages. Chi square test (χ^2) and Fisher exact was used to calculate difference between qualitative variables as indicated. Quantitative data were expressed as mean ± SD (Standard deviation). Independent samples t-test was used to compare between two independent groups of normally distributed variables while Mann Whitney U test was used for non- normally distributed Data. P value < 0.05 was considered significant.

Validity of stool antigen test as compared with histopathological analysis was expressed by the following terms: Sensitivity = true positive/true positive + false negative. i.e the ability of the test to detect positive cases. Specificity = true negative/true negative + false positive. i.e the ability of the test to exclude negative cases. Validity= true positive + true negative/all examined. Positive predictive value (PPV) = true positive/true positive + false positive. Negative predictive value (NPV) = true negative/true negative + false negative.

RESULTS

The mean age of the include cases was 37.10 years (range, 15-60). When dividing cases according to age group, most of the cases (46.7%) were between the age of 20 and 40. Eighty four males (56%) and 66 females (44%) were included. Urban residence was reported by 60.7% of cases, while the remaining cases were having rural residence. Secondary education level was the most common educational level encountered in our cases (64 cases - 42.7%), followed by high education (47 - 31.3%). Farmers were the commonest occupation encountered in our study (58 cases – 38.7%), followed by students (37 cases – 24.7%). Housewives have the least distribution in our study (15 cases – 10%). Tap water was the commonest drinking source in this study (91 – 60.7%), followed by ground water (27 cases – 18%) **(Table 1)**.

Table (1): Demographic data of the cases of the study

Items		Study cases n=150
Age (years)	**Mean ± SD**	**33.10 ± 11.28**
	Median (min-max)	**36 (15-60)**
Age groups		
< 20 years		23 (15.3%)
20-29 years		36 (24%)
30-39 years		34 (22.7%)
40-49 years		30 (20%)
50-60 years		27 (18%)
Sex		
Male		84 (56%)
Female		66 (44%)
Residence		
Urban		91 (60.7%)
Rural		59 (39.3%)
Education level		
Not educated		16 (10.7%)
Primary level		23 (15.3%)
Secondary level		64 (42.7%)
High educational level		47 (31.3%)
Occupation		
Housewives		**15 (10%)**
Students		**37 (24.7%)**
Office work		**22 (14.7%)**
Farmer		**58 (38.7%)**
Manual work		**18 (12%)**
Source of drinking water		
Tap water		**91 (60.7%)**
River		**14 (9.3%)**
Ground water		**27 (18%)**
Bottles water (spring water)		**18 (12%)**

Continuous data expressed as mean±SD and median (range) Categorical data expressed as Number (%).

Ultrasound revealed no abnormality in 95 cases in this study (63.3%). Early cirrhotic liver was detected in 5 cases (3.3%), while marked cirrhosis was present only in one case (0.7%). Gall stones were detected in 15 cases (10%) while 2 cases were having bilateral renal gravels (1.3%). Enlarged prostate was found in 6 cases (4%) **(Table 2)**.

Table (2): Ultrasonographic findings of the cases of the study

	Frequency (n=150)	**Percent (%)**
NAD	95	63.3
Liver		
Bright liver	8	5.4
Cirrhotic liver	1	0.7
Early cirrhotic liver	5	3.3
Fatty liver	2	1.3
Gall bladder		
Chronic calcular cholecystitis	15	10
Spleen		
Moderate splenomegaly	1	0.7
Urinary system		
Bilateral renal gravels	2	1.3
Bilateral increase in renal parenchyma	1	0.7
Cystitis	2	1.4
Left renal stone with back pressure	1	0.7
Left renal stone with no back pressure	1	0.7
Left renal tiny stones	1	0.7
Right hydronephrosis	1	0.7
Right renal gravels	1	0.7
Right renal stone	2	1.3
Simple right renal cyst	1	0.7
Other		
Enlarged prostate	6	4.0
Right ovarian simple cyst	1	0.7
Left simple ovarian cyst	2	1.3
Bilateral ovarian simple cyst	1	0.7
Thick endometrium	1	0.7
Total	150	100

The most common presenting symptom was dyspepsia (53 cases – 39.3%), followed by epigastric pain (53 cases – 35.5%). Abdominal fullness was reported in 15 cases (10%). The presentations included heart burn, abdominal distension, abdominal pain, and nausea **(Table 3)**.

Table (3): Analysis of the presenting symptoms in the cases in the study

	Frequency	**Percent**
Heart burn	10	6.7
Abdominal distention	1	0.7
Abdominal fullness	15	10
Abdominal pain	6	4
Dyspepsia	60	40
Epigastric pain	53	35.3
Persistent nausea	5	3.3
Total	150	100

Endoscopy revealed no abnormality in 29 cases (19.3%). The most common encountered finding was mosaic antral appearance. Antral erosions were diagnosed in 15 cases (10%) whereas erosive gastritis was present in 13 cases (8.6%) **(Table 4)**.

Table (4): Analysis of findings of endoscopy

	Frequency	**Percent**
NAD	29	19.3
Antral erosions	15	10
Bulb duodenitis	3	2
Duodenal superficial clean ulcer	7	4.7
Erosive duodenitis	6	4.0
Erosive gastritis	13	8.6
GERD class A	4	2.7
GERD grade B, OVS grade I, PHG	1	0.7
lesser curvature superficial clean ulcer	1	0.7
Lower esophagitis	4	2.7
Mosaic appearance of the antrum	47	31.3
Multiple prepyloric antral inflammatory polyps	2	1.3
Multiple prepyloric antral ulcerations	1	0.7
Non erosive gastritis	8	5.3
Prepyloric antral erosions	3	2
Prepyloric small multiple ulcerations	4	2.7
Sliding H.H	2	1.3
Total	150	100

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The stool antigen test revealed 65.8% sensitivity, 60% specificity, 64.4% accuracy, 86.8% PPV and 30.5% NPV in prediction of symptoms. The stool antigen test revealed 75% sensitivity, 71.7% specificity, 74% accuracy, 85.7% PPV and 55.9% NPV in prediction of endoscopic findings **(Table 5)**.

Table (5): Correlation between results of stool antigen test and symptoms and endoscopic findings

Symptoms	Stool antigen test	
	Negative (N=59)	Positive (N=91)
Negative	18 (30.5%)	12 (13.2%)
Positive	41 (69.5%)	79 (86.8%)
Sensitivity	65.8%	
Specificity	60%	
Accuracy	64.7%	
PPV	86.8%	
NPV	30.5%	
Endoscopic findings		
Negative	33 (55.9%)	13 (14.3%)
Positive	26 (44.1%)	78 (85.7%)
Sensitivity	75%	
Specificity	71.7%	
Accuracy	74%	
PPV	85.7%	
NPV	55.9%	

PPV: positive predictive value NPV: negative predictive value

The CLO test revealed 68.3% sensitivity, 46.7% specificity, 64% accuracy, 83.7% PPV and 26.9% NPV in prediction of symptoms. The CLO test revealed 73.1% sensitivity, 52.2% specificity, 66.7% accuracy, 77.6% PPV and 46.2% NPV in prediction of endoscopic findings **(Table 6)**.

Table (6): Correlation between results of CLO test and symptoms and Endoscopic findings

Symptoms	CLO test	
	Negative (N=52)	Positive (N=98)
Negative	14 (26.9%)	16 (16.3%)
Positive	38 (73.1%)	82 (83.7%)
Sensitivity	68.3%	
Specificity	46.7%	
Accuracy	64%	
PPV	83.7%	
NPV	26.9%	
Endoscopic findings		
Negative	24 (46.2%)	22 (22.4%)
Positive	28 (53.8%)	76 (77.6%)
Sensitivity	73.1%	
Specificity	52.2%	
Accuracy	66.7%	
PPV	77.6%	
NPV	46.2%	

PPV: positive predictive value NPV: negative predictive value

As compared with results of biopsies, stool antigen test revealed 77.8 % sensitivity, 90 % specificity and total validity of 85%. With high significant level of agreement between the two techniques (p < 0.001) **(Table 7)**.

Table (7): Analysis of the validity of stool antigen test against as compared to histopathology

Stool antigen test	Biopsy results		Measure of agreement	
			Kappa	P value
	Absent (35)	Present (115)		
Absent	35 (100%)	24 (20.9%)	0.722	< 0.001**
Present	0 (0%)	91 (79.1%)		
Sensitivity	77.8%			
Specificity	90%			
Accuracy	85%			
PPV	90%			
NPV	64.3%			

** = highly statistically significant

DISCUSSION

In this study, the mean age of the include cases was 37.10 years (range, 15-60). Eighty four males (56%) and 66 females (44%) were included.

Similar results were reported by *Srinivasan et al. (2016)* who showed that of the 479 patients evaluated, males were 278 (58%) and females were 201 (42%).

Seid et al. (2018) reported that during the study period a total of 363 (57.3% females) with upper gastrointestinal symptomatic adults who fulfilled the inclusion criteria were included in the analysis. The age of participants ranged from 18 to 85 years with a mean (± SD) of 39.11 ±15.38 years.

In another study, the sample included 100 patients, 54% were males and 46% were females, giving a male to female ratio of 1.2:1. The age ranged from 20 - 49 years with a mean of 34.2 ± 8.5 years *(Mohammed, 2014)*.

In this study, when dividing cases according to age group, most of the cases (46.7%) were between the age of 20 and 40 which probably reflects the acquisition of the infection during adulthood period.

Our data did coincided with most published studies conducted previously, in which prevalence is seen to rise until it peaks in middle- aged individuals, around 50-60 years *(Zhang et al., 2010* and *Dhakhwa et al., 2012)*.

In this study, urban residence was reported by 60.7% of cases, while the remaining cases were having rural residence. Secondary education level was the most common educational level encountered in our cases (64 cases - 42.7%), followed by high education (47 - 31.3%).

Also, farmers were the commonest occupation encountered in our study (58 cases – 38.7%), followed by students (37 cases – 24.7%). Housewives have the least distribution in our study (15 cases – 10%). Tap water was the commonest drinking source in this study (91 – 60.7%), followed by ground water (27 cases – 18%).

This came in agreement with another study where majorities, 38.3%, of the participants do not have formal education and 42.1% were farmer. Two hundred eight (57.3%) of total participants were rural residents, and 61.4% of participants had used tap water for their daily consumption *(Seid et al., 2018)*.

Also in the study conducted by *Adu-Aryee et al. (2016)* reported that a vast majority of the study subjects (88.2 %, n = 67) were from urban areas and 9 (11.8 %) were from rural areas.

In this study, Stool antigen test was positive in 91 cases (60.7%). Moreover, CLO test was positive in 98 cases (65.3%).

Similar results were reported by *Seid et al. (2018)* who reported that among 363 participants, H. pylori IgG were detected in 225 (70.25%) participants.

The overall prevalence of H. pylori infection in another study was 68% (155/228) among symptomatic patients referred for endoscopies in our local setting *(Shrestha et al., 2019)*.

Srinivasan et al. (2016) showed that 248 (51.7%) of the 479 patients were found to be H pylori positive. While *Moon et al. (2018)* showed that of the 318 included subjects, stool test was positive in 256 (80.5%).

In this study, endoscopy revealed no abnormality in 29 cases (19.3%). The most common encountered finding was mosaic antral appearance. Antral erosions were diagnosed in 15 cases (10%) whereas erosive gastritis was present in 13 cases (8.6%).

In the study conducted by *Mohammed (2014)*, the commonest osephageogastro duodenoscopy (OGD) findings were antral gastropathy (59%) and duodenal ulcer (21%).

In accordance with the current results, *Srinivasan et al. (2016)* reported that gastritis at 59.4% was the most common endoscopic finding in the study population. 61.4% of males and 38.6% of females had gastritis. Esophagitis was seen in 5.2% followed by duodenal ulcer and gastroduodenitis which was seen in 3.1% of patients. 97(20.2%) of patients had normal endoscopy with no mucosal lesions and it was more common in the patients <20 years.

The most common endoscopic finding in 318 seropositive subjects was chronic atrophic gastritis (CAG). Eleven subjects showed normal endoscopic finding, whereas 79 had more than two diagnoses that included synchronous CAG and metaplastic gastritis (MG) *(Moon et al., 2018)*.

Endoscopy finding was divided into gastritis, duodenitis, duodenal ulcer, gastric ulcer, and gastric cancer, which was diagnosed in 144 (63.2%), 26 (11.4%), 28 (12.3%), 25 (11%), and 5 (2.2%) patients, respectively *(Shrestha et al., 2019)*.

Based on previous prevalence studies, it has been established that the finding of a non-bleeding duodenal ulcer has a positive predictive value of over 90 % for H. pylori diagnosis, making confirmatory tests not mandatory. However, the positive predictive values for gastric ulcers, bleeding duodenal ulcers and perforated duodenal ulcers are lower and

confirmatory tests would be necessary *(Adu-Aryee et al., 2016)*.

In the current study, the most common presenting symptom was dyspepsia (53 cases – 39.3%), followed by epigastric pain (53 cases – 35.5%). Abdominal fullness was reported in 15 cases (10%). The presentations included heart burn, abdominal distension, abdominal pain, and nausea in lower frequencies.

Srinivasan et al. (2016) reported similar results as they showed dyspepsia (67.4%) was the most common symptoms altogether and it was the main presenting complaint amongst males (56.6%) and was more common in the fourth decade. The second most common symptom was pain abdomen which accounted for 14.4% of all patients studied of which 56.5% were males and 43.3% were females.

In this study, Males represented 62.7% and 51.6% of cases in both groups respectively with no significant difference between the two groups (p = 0.254).

There were no differences in age and gender between the negative and positive stool test groups *(Moon et al., 2018)*.

Our results also agreed with *Mandal et al. (2019)* who showed that of 27 (23.9%) patients infected by H. pylori; 17 (63%) were male and 10 (37%) were female. The infection by H.pylori did not differ significantly between males and females.

In this study, the presenting symptom was significantly different between the study groups (p = 0.023). With regard to the endoscopic findings, chronic atrophic gastritis (CAG) was more common in those with a positive stool test (p = 0.009) and, chronic superficial gastritis (CSG)

was more common in those with a negative stool test *(Moon et al., 2018)*.

In this study, biopsy findings were positive in 115 (76.7%) cases and negative in 35 (23.3%) cases. As compared with results of biopsies, stool antigen test revealed 77.8 % sensitivity, 90 % specificity and total validity of 85%. With high significant level of agreement between the two techniques (p < 0.001).

This came in accordance with *Mandal et al. (2019)* who showed that histopathological finding of chronic active gastritis (CAG) was observed in H. pylori infection. Patients who had H. pylori had significantly higher CAG (85.2%) as compared to H. pylori negative subjects.

In another study, comparing the stool antigen with antral histological examination as gold standard for diagnosis of H. pylori infection revealed 65.2 % sensitivity, 46.8% specificity and total accuracy of 60.4% respectively which were lower than the results of our study *(Mohammed, 2014)*.

In another study, the most common endoscopic findings was erythematous antral gastritis (40.7%) followed by erosive gastritis 34 (30.1%), pangastritis 10 (8.8%), duodenal ulcer 13 (11.5%), gastric ulcer 9 (8%) and erosive fundal gastritis 2 (1.8%) were detected. The endoscopic findings such as gastritis, gastric ulcer, duodenal ulcer were not significantly associated with H. pylori. Ten (37%) reflux esophagitis patients were H. pylori infected *(Mandal et al., 2019)*.

CONCLUSION

Dyspepsia is the common presentation among cases complaining from upper GIT symptoms.

Most of the cases were positive for H. pylori antigens indicating high prevalence among cases with upper GIT symptoms.

Most of the cases with upper GIT symptoms had benign pathology on histopathological analysis.

Stool antigen test for H. Pylori revealed high sensitivity in comparison with histopathological findings in diagnosis cases with upper GIT symptoms.

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معامل الهيليكوباكتر بيلوري في البراز وموجودات المناظير في المرضي بأعراض الجهاز الهضمي العلوي المستمرة

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خلفيـة البحــث: بكتيريـا المَلويـة البَوابيـة هـي مصـدر قلـق كبيـر اليـوم بسـبب علاقتهـا السـببية بمــرض المعـدة والاثنـي عشـر. يعـاني نصـف سـكان العـالم مـن عـدوى الملويـة البوابيـة، مـع انتشـار يقـدر بـأكثر مـن 90٪ فـي البلـدان الناميـة. يعـد عسـر الهضـم شـكوى منتشـرة فـي عيـادات الممارسـة العامـة والجهـاز الهضـمي. منـذ اكتشـافه وعُزيـت الحلزونيـة البوابيـة إلـى كونهـا مسـؤولة عـن العديـد مـن أعـراض الجهـاز الهضـمي العلـوي. الاختبـار المعيـاري الـذهبي للتشـخيص هـو تنظيـر الجهـاز الهضـمي العلـوي مـع الخزعـة ، ولكنـه غيـر متـوفر فـي جميـع مرافـق الرعايـة الصـحية بجانـب طبيعته الغازية التي لا يقبلها العديد من المرضى.

الهـدف مـن البحـث: مقارنـة الدقـة التشخيصـية لمستضـد المَلويـة البَوابيـة فـي البـراز مـع الكشف بالمنظار في المرضى الذين يعانون من أعراض أعلى البطن.

المرضـى والطـرق: تضـمنت هـذه الدراسـة 150 مـع شـكاوى مـن الجـزء العلـوي مـن البطن محولـة مـن العيـادات الخارجيـة وكـذلك قسـم المرضـى الـداخليين الـذين خضـعوا لخزعـة المعـدة أثنـاء تنظيـر الجهـاز الهضـمي العلـوي لأعـراض عسـر الهضـم المختلفـة. تـم تجنيـد الحـالات مـن معهـد الكبـد، المحلـة الكبـرى، محافظـة الغربيـة، مصر.

نتـائج البحـث: فيمـا يتعلـق بـأعراض التقـديم، كـان عسـر الهضـم أكثـر الأعـراض شـيوعاً (53 حالـة - 39.3٪)، يليــه الألـم الشرسـوفي (53 حالـة - 35.5٪). تـم الإبـلاغ عـن امـتلاء البـطن فـي 15 حالـة (10٪). وكـان إختبـار مستضـد البـراز موجبًـا فـي 91 حالـة (60.7٪). وكـان إختبـار الكـائن الحـي الشـبيه بالعطيفـة (CLO) موجبًـا فـي 98 حالـة (65.3٪). وأظهـر التنظيـر عـدم وجـود شـذوذ فـي 29 حالـة (19.3٪). كـان الاكتشـاف الأكثـر شـيوعًا هـو المظهـر الفسيفسـائي الغـار. تـم تشـخيص تآكـل

الغشـــاء فـي 15 حالـــة (10٪) بينمـــا كـــان التهـــاب المعـــدة التـــآكلي موجـــوداً فـي 13 حالـــة (8.6٪). وكانـــت نتـــائج الخزعـــة إيجابيـــة فـي 115 حالـــة (76.7٪) وســـلبية فـي 35 (23.3٪) حالـــة. مقارنـــة بنتـــائج الخزعـــات ، أظهـــر اختبـــار مستضـــد البـــراز حساسـية 77.8٪ وخصوصـــية 90٪ وصـــلاحية كليـــة 85٪، مـــع مســـتوى عـــالٍ مـــن التوافـــق بـــين الطريقتين.

الاستنتاج: عســـر الهضـــم هـو العـــرض الشـــائع بـــين الحـــالات التـي تشـــكو مـــن أعـــراض الجهـــاز الهضـــمي العلـــوي. أظهـــر إختبـــار مستضـد البـــراز لجرثومـــة المَلويـــة البَوابيـــة حساســـية عاليـــة بالمقارنـــة مـــع نتـــائج التشـــريح المرضـــي فـي حـــالات التشــخيص بأعراض الجهاز الهضمي العلوي.

الكلمـــات الدالـــة: بكتيريـــا المَلويـــة البَوابيـــة، مستضـد البـــراز، نتـــائج التنظيـــر الـــداخلي، الجزء العلوي من البطن.