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ENDOSCOPIC VERSUS HISTOPATHOLOGICAL DIAGNOSIS OF PAN-GASTRITIS IN PATIENTS WITH PEPTIC ULCER DYSPEPSIA

By

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ABSTRACT

Background: Peptic ulcer is an acid-induced lesion of the digestive tract that is usually located in the stomach or proximal duodenum, and is characterized by denuded mucosa with the defect extending into the submucosa or muscularis propria. Pangastritis commonly seen in upper gastrointestinal (UGI) and we need to take biopsies for histopathology to confirm gastritis histological.

Objective: This study aims to analyze the correlation between the endoscopic findings and the histological diagnosis of pan-gastritis in newly diagnosed ulcer dyspeptic patients.

Patients and methods: A hospital-based cross-sectional study conducted on 180 patients at Al-Hussien University Hospitals to assess the endoscopic and histopathologic pattern of pan-gastritis among patients presented by newly diagnosed peptic ulcer dyspepsia not more than 4 weeks attending the Hepato-gastroenterology and Infectious diseases Department outpatient clinic and endoscopy unit during, the period from February to August 2019.

Results: Results of histopathology compared to endoscopic result in diagnosis of ulcer dyspepsia, we found that 120 patients (66.7%) true positive, 14 patients (7.8%) true negative, 18 patient (10%) false positive and 28 patients (15.6%) false negative. Thus endoscope had the sensitivity of 81.8%, specificity of 43.8%, PPV of 86.9%, NPV of 33.3% and accuracy of 74.4% in diagnosis of pangastritis. Also H.pylori was examined by giemsa stain and found that H.pylori positive in 71.1% of cases which mean significant association between ulcer dyspepsia and H. pylori, mostly was in the antrum was positive in 128 patients (71.1%), H. pylori Body was positive in 88 Patients (48.9%) while H. pylori fundus was positive in 75 patients (41.7% According to symptoms of the patients we find that 41.1 % (74) from ulcer dyspeptic patient cases complaining from epigastric pain then early satiation was positive 70 patients (38.9%), Post prandial fullness was positive 64 patients (35.6%) followed by Epigastric burning was positive in 59 patients (32.8%) of all studied patients.

Conclusion: Pan-gastritis is a common finding in ulcer dyspeptic patients and endoscopy has high sensitivity in diagnosis of pangastritis and normal endoscopic appearance does not rule it out and the histopathology is still the gold standard method.

Keywords: Endoscopic, Histopathological, Pan-gastritis, Peptic Ulcer Dyspepsia.

INTRODUCTION

Peptic ulcer disease (PUD) is a common disease worldwide also known as peptic ulcer or stomach ulcers, PUD occurs as a defect in the mucosa of the stomach or duodenum that exceeds the muscularis mucosa. PUD follows gastric mucosal injuries as a result of imbalance

between the defensive and the aggressive factors affecting the mucos *(Lee et al., 2017)*.

Etiology of PUD include H. pylori infection, NSAIDS, pepsin, smoking, alcohol, bile-acids, steroids, stress, and changes in gastric mucin consistency (may be genetically determined) *(Niv, 2010)*.

Other causes include Behcet disease, Zollinger Ellison syndrome, Crohn disease and liver cirrhosis, and similar symptoms of coronary heart disease, and inflammation of the gallbladder *(Najm, 2011)*.

Symptoms of PUD are nonspecific and diagnosis unreliable on history, frequent symptoms include, epigastric pain, nausea, flatulence and bloating, heartburn, a posterior ulcer may cause pain radiating to the back, and symptoms are relieved by antacid *(Miwa et al., 2015)*.

Diagnosis is mainly established based on the characteristic symptoms, endoscopies or barium contrast and tests for H. pylori infection *(Prabu and Shivani, 2014)*.

Dyspepsia is a common medical disorder defined by the presence of upper abdominal pain or discomfort accompanied by other upper gastrointestinal symptoms, such as belching, vomiting, nausea, etc or without them *(Rezailashkajani et al., 2011)*.

Norman et al. (2012) Concluded that the standard endoscopy in dyspeptic patients is a poor predictor of pathologic changes and its extent. Biopsies are required for accurate diagnosis of gastritis.

Gastritis is the inflammation of gastric mucosa. It can be acute, which is characterized by sudden severe attack of symptoms lasting for short duration (1-2 days) or chronic, which is often silent and develops slowly. Complications of gastritis may include bleeding, gastric ulcers, and gastric tumors. The major cause of both acute and chronic gastritis is the H. Pylori infection *(Varbanova et al., 2014)*.

H. Pylori are gram-negative bacteria that colonize the human gastric epithelium and represent one of the most common infections affect human all over the world. The overall prevalence of H. Pylori infection in patients of dyspepsia was 68%. The prevalence of H. Pylori was higher in ulcer dyspepsia patients. There was a significant association between H. Pylori and duodenal ulcers *(Shanthi et al., 2017)*.

Another common cause is the mal use of nsaids, however, there are many other causes such as bacterial, viral and parasitic infections, bile reflux, allergic reactions, stress, radiation, certain food poisonings (infectious and chemical), and trauma *(Holtmann and Talley, 2014)*.

This study aims to analyze the correlation between the endoscopic findings and the histological diagnosis of pan-gastritis in newly diagnosed ulcer dyspeptic patients.

PATIENTS AND METHODS

A hospital-based cross-sectional study conducted on 180 patients at Al-Hussien University Hospitals to assess the endoscopic and histopathologic pattern of pan-gastritis among patients presented by newly diagnosed peptic ulcer dyspepsia

not more than 4 weeks attending the Hepato-gastroenterology and Infectious diseases Department outpatient clinic and endoscopy unit during, the period from February to August 2019.

The current protocol is approved by the committee of Gastroenterology and Infectious disease Department and by the committee of Faculty of Medicine, Al-Azhar University.

Inclusion criteria: All patients complaining of newly ulcer dyspepsia are included.

Exclusion criteria: Chronic liver disease, chronic kidney diseases, cancer patients, and drug abuse.

All patients subjected to:

A. History taking: All study participants were answered a questionnaire before the EGD that included dietetic, social, medical and family history of malignant diseases.

B. Physical examination: Careful clinical examination.

C. Laboratory investigations: Complete blood count, liver function tests, kidney function tests and abdominal ultrasonography was done in fasting patients.

D. Endoscopic examination: 180 patients complaining of newly diagnosed peptic ulcer dyspepsia not more than 4 weeks coming for upper endoscopy unit for EGD and diagnosed as peptic ulcer disease were included in our study and patients with chronic liver disease, chronic kidney disease or dyspepsia more than 8 weeks will be excluded. Multiple biopsies were taken form antrum, lesser and greater curvature and fundus for histo-pathological examination.

The patients were required to fast for at least 6 hours before the endoscopic procedure. The endoscopy was performed using GIF-Q260 (Olympus Co., Tokyo, Japan) after local pharyngeal anesthesia was provided using lidocaine spray (xylocaine), and sedation.

Endoscopy done and multiple biopsies were taken from antrum, body and fundus each specimen put in a tube with special number 1 for antrum biosy, 2 for body biopsy and 3 for fundal biopsy with formalin 10 % in each tube.

Histopathological examination was done for each specimen:

Preparation of paraffin sections:

- **Fixation:** in 10% formalin.
- **Dehydration:** through ascending grades of alcohol:

  70% alcohol: 1.5 hours.

  90% alcohol: 1.5 hours.

  Absolute alcohol: 3 hours.
- **Clearing:** The specimens were cleared in xylene for 4 hours.
- **Infiltration:** The cleared specimens were impregnated in soft pure paraffin through three different grades (each one for one hour) at 56 oC.
- **Imbedding:** finally, the specimens embedded in hard paraffin wax at 58 oC and oriented in blocks.
- **Cutting:** Paraffin sections of 5-6 micrometer thickness were cut for histological study.

- **Staining:** Hematoxylin and Eosin (H & E).
- Mounted in DPX and covered.

Statistical analysis:

Data were analyzed using Statistical Program for Social Science (SPSS) version 24. Quantitative data were expressed as mean± standard deviation (SD). Qualitative data were expressed as frequency and percentage. Mean (average): the central value of a discrete set of numbers, specifically the sum of values divided by the number of values. Standard deviation (SD): is the measure of dispersion of a set of values. A low SD indicates that the values tend to be close to the mean of the set, while a high SD indicate that the values are spread out over a wider range. Chi-square test was used when comparing between non-parametric data. Sensitivity: probability that a test result was positive when the disease is present. Specificity: probability that a test result was negative when the disease is not present. Positive predictive value was the probability that the disease is present when the test is positive. Negative predictive value is the probability that the disease is not present when the test is negative. P-value < 0.05 was considered significant.

RESULTS

Age, the mean age of all studied patients was 41.5 ± 14.5 years with minimum age of 18 years and maximum age of 67 years. As regard sex, there were 88 males (48.9%) and 92 females (51.1%) in the studied patients. As regard Scio-economic status, there were 94 patients (52.2%) with low status, 80 patients (44.4%) with moderate status and 6 patients (3.3%) with high status in the studied patients.

The risk factors, there were 26 smoker patients (14.4%), 106 Patients (58.9%) taking NSAIDs and 22 patients (12.2%) taking steroids in the studied patients.

The patients suffering from epigastric pain was positive in 74 patients (41.1%), early satiation was positive 70 patients (38.9%)Post prandial fullness was positive 64 patients (35.6%), while Epigastric burning was positive in 58 patients (32.2%) of all studied patients.

The H. pylori antrum was positive in (71.1%) of patients, H. pylori Body was positive in 48.9% patients, while H. pylori fundus was positive in (41.7%) patients.
It was at Antrum in 75 patients (41.7%); it was at body at 71 patients (39.4%) while it was at fundus at 39 patients (21.7%) of studied patients.

There were 42 patients (23.3%) normal, 16 patients (8.9%) with antral gastropathy and 122 patients (67.8%) with pangastropathy. The 138 patients with gastropathy were grade as 56 patients (40.6%) mild, 57 patients (41.3%) moderate and 25 patients (18.1%) severe gastritis **(Table 1)**.

Table (1): Description of demographic data, risk factors, symptoms, H. pylori results, ulcer site and endoscopic results of all studied patients

			Studied patients (N = 180)	
Demographic data	Age (years)	Mean ±SD Min - Max	41.5 ± 14.5 18 – 67	
			No.	%
	Sex	Male Female	88 92	48.9% 51.1%
	Scio-economic status	Low Moderate High	94 80 6	52.2% 44.4% 3.3%
Risk factors	Smoking	Non-smoker Smoker	154 26	85.6% 14.4%
	NSAIDs	No Yes	74 106	41.1% 58.9%
	Steroid	No Yes	158 22	87.8% 12.2%
Symptoms	Epigastric pain	Negative Positive	106 74	58.9% 41.1%
	Early satiation	Negative Positive	110 70	61.1% 38.9%
	Post prandial fullness	Negative Positive	116 64	64.4% 35.6%
	Epigastric burning	Negative Positive	122 58	67.8% 32.2%
H. pylori results	Antrum	Negative Positive	52 128	28.9% 71.1%
	Body	Negative Positive	92 88	51.1% 48.9%
	Fundus	Negative Positive	105 75	58.3% 41.7%
Ulcer	Antrum Body Fundus		75 71 39	41.7% 39.4% 21.7%
Endoscopic results	Endoscopic result	Normal	42	23.3%
		Gastropathy	16	8.9%
		Pangastropathy	122	67.8%
	Grade of gastritis (N = 138)	Mild	56	40.6%
		Moderate	57	41.3%
		Sever	25	18.1%

As regard Antrum, there were 11 patients (6.1%) normal, 26 patients (14.4%) with acute gastritis, 133 patients (73.9%) with chronic gastritis and 10 patients (5.6%) with active chronic gastritis. As regard body, there were 13 patients (7.2%) normal, 25 patients (13.9%) with acute gastritis, 140 patients (77.8%) with chronic gastritis and 2 patients (1.1%) with active chronic gastritis. As regard fundus, there were 16 patients (8.9%) normal, 22 patients (12.2%) with acute gastritis, 138 patients (76.7%) with chronic gastritis and 4 patients (2.2%) with active chronic gastritis. The Histo-pathological net result: there were 20 patients (11.1%) with gastritis and 160 patients (88.9%) with pan-gastritis.

As regard Antrum, there was 13 patient (7.2%) normal, 45 patients (25%) mild, 71 patients (39.4%) moderate and 51 patients (28.3%) severe. As regard body, there were 13 patients (7.2%) normal, 45 patients (25%) mild, 77 patients (42.8%) moderate and 45 patients (25%) severe. As regard fundus, there were 15 patients (8.3%) normal, 87 patients (48.3%) mild, 37 patients (20.6%) moderate and 41 patients (22.8%) severe **(Table 2)**.

Table (2): Description of histo-pathological results and histo-pathological results (severity) in all studied patients

			Studied patients (N = 180)	
Histo-pathological results	**Antrum**	**Normal**	11	6.1%
		Acute	26	14.4%
		Chronic	133	73.9%
		Active chronic	10	5.6%
	Body	**Normal**	13	7.2%
		Acute	25	13.9%
		Chronic	140	77.8%
		Active chronic	2	1.1%
	Fundus	**Normal**	16	8.9%
		Acute	22	12.2%
		Chronic	138	76.7%
		Active chronic	4	2.2%
Histo net result		**Gastritis**	20	11.1%
		Pan-gastritis	160	88.9%
Histo-pathological results (severity)	**Antrum**	**Normal**	13	7.2%
		Mild	45	25%
		Moderate	71	39.4%
		Marked	51	28.3%
	Body	**Normal**	13	7.2%
		Mild	45	25%
		Moderate	77	42.8%
		Marked	45	25%
	Fundus	**Normal**	15	8.3%
		Mild	87	48.3%
		Moderate	37	20.6%
		Marked	41	22.8%

There was no statistical significant difference (p-value > 0.05) between patients with gastritis and patients with pan-gastritis as regard sex, smoking, NSAIDs, steroids and H pylori at antrum. There was a statistically significant difference (p-value < 0.05) between patients with gastritis and patients with pan-gastritis as regard H pylori at body and fundus **(Table 3)**.

Table (3): Relation between Histopathology and personal data

		Gastritis (N = 20)		Pan-Gastritis (N = 160)		P-value
Sex	**Male**	11	55%	77	48.1%	0.562
	Female	9	45%	83	51.9%	
Smoking	**No**	20	100%	134	83.8%	0.051
	Yes	0	0%	26	16.3%	
NSAIDs	**No**	9	45%	66	41.3%	0.748
	Yes	11	55%	94	58.8%	
Steroids	**No**	17	85%	141	88.1%	0.687
	Yes	3	15%	19	11.9%	
H. Pylori Antrum	**No**	7	35%	45	28.1%	0.522
	Yes	13	65%	115	71.9%	
H. Pylori Body	**No**	16	80%	76	47.5%	**0.006**
	Yes	4	20%	84	52.5%	
H. Pylori Fundus	**No**	16	80%	89	55.6%	**0.037**
	Yes	4	20%	71	44.4%	

This table shows highly statistical significant difference (p-value < 0.001) between endoscopic and histo-pathological results **(Table 4)**.

Table (4): Comparison between endoscopic and histo-pathological results

		Endo (N = 180)		Histo (N = 180)		P-value
Results	**Normal**	42	23.3%	0	0%	**< 0.001**
	Gastropathy	16	8.9%	20	11.1%	
	Pangastropathy	122	67.8%	160	88.9%	

Total studied patients were 180 patients. There were 120 patients (66.7%) true positive, 14 patients (7.8%) true negative, 18 patient (10%) false positive and 28 patients (15.6%) false negative. Thus endoscope had the sensitivity of 81.8%, specificity of 43.8%, PPV of 86.9%, NPV of 33.3% and accuracy of 74.4% in diagnosis of pangastropathy **(Table 5)**.

Table (5): Diagnostic performance of endoscope in relation to histopathology results

(n = 180)	True positive		True negative		False positive		False negative	
Endoscope	120	66.7%	14	7.8%	18	10%	28	15.6%
	Sensitivity		**Specificity**		**PPV**		**NPV**	**Accuracy**
Endoscope	81.8%		43.8%		86.9%		33.3%	74.4%

DISCUSSION

We found that dyspepsia was more common in female with no significance statistical difference.

As regard sex this agree with meta-analysis by *Ford et al. (2015)* assessed the prevalence of dyspepsia according to gender in 55 studies and found a slightly higher prevalence of dyspepsia in women compared with men (25.3 vs 21.9%).

According to symptoms of the patients we find that 41.1 % from studied patients complaining of epigastric pain then early satiation in 38.9% , post prandial fullness in 35.6% followed by epigastric burning in 32.8%of all studied patients. This agrees with *Seid et al. (2018)* said that 42% from studied patient present with epigastric pain.

Also our result is also in line with study in Iran as epigastric pain or burning (58.3%) being dominant complaint of dyspeptic patients *(Seyedmirzakjt et al., 2014)*.

Regarding to gastritis we find that gastritis more common in female (52%) this agree with *Miranda et al. (2019)* that female was more than male in gastritis but with no significance statistics.

According evaluate the risk factor of dyspepsia we find that 85.6 % from cases has negative history of smoking this is against *Jaber et al. (2016)* say that there is strong association between dyspepsia and smoking.

Regarding to gastritis and smoking we found that from 160 patients have gastritis by histopathology only 15% from patient have positive history of smoking this agree with study by *Namiot et al. (2010)* said that In the H. pylori infected population, H. pylori density, neutrophils, and mononuclear cells infiltration were lower in smokers than non-smokers, In the non-infected population, no significant differences in neutrophils and mononuclear cells infiltration between smokers and non-smokers were found.

But in our study only 15 % have positive history of smoking this may duo to the high percentage of female included in study.

Another study with same result say that Smoking seems to decrease inflammation in the gastric body and to delay atrophic changes in the gastric body. Subsequently, the prevalence of duodenal ulcers increased *(Koivisto et al., 2012)*.

Another study by *El Hamshary et al. (2011)* says that the association with cigarette smoking and chronic gastritis was insignificant.

Regarding to NSAID and dyspepsia (58.8%) has positive history and (41.1%) has negative history which means that NSAID increase risk of dyspepsia. A study by *Straus et al. (2010)* show that based solely on epigastric pain-related symptoms, NSAIDs increased the risk of dyspepsia by 36%.

Regarding to relation between gastritis and NSAIDs we found that from 160 patient have gastritis 58.8% have history of NSAIDs intake so NSAID increase risk of gastritis this agree with *Hakki (2017)* conclude that these medication increase risk of gastritis and hazardous to GIT tract and prove that Judicious use of these medication is required to prevent its untoward side effects.

In our study H.pylori positive in 71.1% of cases which mean significant association between dyspepsia and H.pylori, mostly in the antrum (71.1%), body (48.9%) while H. pylori fundus was (41.7%) of the studied patients.

A study done by *Zhao et al. (2014)* show that H. pylori eradication therapy is associated with improvement of dyspeptic symptoms in patients with dyspepsia functional dyspepsi (FD), which is consistently demonstrated in the Asian, European, and American populations. *Zhang et al. (2016)* make a study over 70 dyspeptic patient and its result showed that dyspepsia symptoms significantly higher in H.pylori positive patients and Concluded that H. Pylori infection treatment helps to improve symptoms of dyspepsia and is a reasonable choice for treatment in clinical practice.

In our study by endoscopy we found 67.8% of patients have pangastritis and 8.9% have gastritis (antral or body or fundal) and 23.3% have normal gastric mucosa. The 138 patients with gastropathy were grade as 56 patients (40.6%) mild, 57 patients (41.3%) moderate and 25 patients (18.1%) severe gastritis. Biopsies taken from antrum, body and fundus examined histopathologically found that 88.9 % from patients have pangastritis and 11.1 % have (antral or body or fundal) gastritis.

At the end 66.7% from studied patients showed to have pangastritis by both endoscopy and histopathlogy so sensitivity of endoscope in diagnosis of pangastritis about 81.8%.

We found that 10% from patients diagnosed as pan gastritis by endoscopy their histopathology examination show that their mucosa normal and no pangastritis in it, so PPV of endoscopy in diagnosis of pangastritis about 86.9%.

23.3% from all studied patients diagnosed by endoscopy as normal mucosa, but according to histopathology only 8.9% from all studied patients have normal mucosa, so NPV of endoscopy in pangastritis about 33.3%, so we can conclude that normal endoscopic appearance is a poor predictor of the absence of pangastritis. This agree with study by *Jemilohun et al. (2010)* show that 53 (98%) of the 54 patients with endoscopic gastritis and, 31(93.9%) of the 33 patients with no endoscopic gastritis had histological gastritis respectively. This shows a good association between the presence of endoscopic gastritis and

histological gastritis and a very poor association between normal endoscopic mucosa and normal histology, so this study concludes that normal endoscopic appearance is a poor predictor of the absence of histological gastritis in the South-Western part of Nigeria.

Another study by *Taweesak et al. (2015)* show the present study of the correlation between gastric mucosal morphologic pattern and histological gastritis severity (using the updated Sydney classification) shows a good correlation between the gastric mucosal morphologic pattern and the severity of gastritis.

Another study by *Bertges et al. (2018)* of 92 examinations analyzed, the histological diagnosis of antral gastritis appeared in 75 exams, 59 endoscopic reports contained the diagnosis of antral gastritis, and 33 endoscopic findings were normal. The kappa coefficient was 0.212 ($P<0.05$), indicating that there was no significant agreement between the endoscopic findings and the histological diagnosis of antral gastritis.

A study done by *Calabrese et al. (2010)* concluded that single endoscopic features are poorly correlated with histologic changes and Helicobacter pylori status. Biopsies are mandatory in all cases. As it result was out of 532 patients, there was a significant difference between abnormal endoscopic features in detecting the histologic gastritis, with endoscopic atrophy and nodularity showing the highest positive predictive value which reaches 96.7% and 91.8%, respectively.

CONCLUSION

Pan-gastritis is a common finding in ulcer dyspeptic patients and endoscopy has high sensitivity in diagnosis of pangastritis and normal endoscopic appearance does not rule it out and the histopathology is still the gold standard method.

REFERENCES

1. **Bertges LC, Dibai FN, Bezerra G, Oliveira ES, Aarestrup FM and Bertges KR. (2018):** Comparison between the endoscopic findings and the histological diagnosis of antral gastritis. Arq Gastroenterol., 55(3):212-215.
2. **Calabrese C, Di Febo G, Brandi G and Morselli-Labate AM. (2010):** Correlation between endoscopic features of gastric antrum, histology and Helicobacter pylori infection in adults. Ital J Gastroenterol Hepatol., 31(5):359-65.
3. **El Hamshary NK, Mohamed TA, Abdou ME, Yasser KE. (2011):** Study of the risk factors of chronic gastritis in fayoum governorate. AAMJ, 9: 13-10.
4. **Ford AC, Marwaha A, Sood R and Moayyedi P. (2015):** Global prevalence of, and risk factors for, uninvestigated dyspepsia: a meta-analysis. Gut, 64:1049–1057.
5. **Holtmann G and Talley NJ. (2015):** Herbal medicines for the treatment of functional and inflammatory bowel disorders. Clin Gastroenterol Hepatol., 13:422–432.
6. **Jaber N, Al-Remawi M, Al-Akayleh F, Al-Muhtaseb N, Al-Adham ISI and Collier PJ. (2016):** Dietary and Lifestyle Factors Associated with Dyspepsia among Pre-clinical Medical Students in Ajman, United Arab Emirates. Cent Asian J Glob Health, 5(1):192-196.
7. **Lee YC, Cheng CW, Lee HJ and Chu HC. (2017):** Apple polyphenol suppresses indomethacin-induced gastric damage in experimental animals by lowering oxidative stress status and modulating the MAPK signaling pathway. J Med Food, 20(11):1113-20.

8. **Miranda AC, Caldato C, Said MN, Levy CS, Teixeira CEC and Quaresma JAS. (2019):** Age, endoscopic findings, urease and helicobacter pylori: all uncorrelated within a sample of a high gastric cancer prevalence population in amazon. Arq Gastroenterol., 56(3):264-269.

9. **Miwa H, Kusano M and Arisawa T. (2015)**: Evidence-based clinical practice guidelines for functional dyspepsia. J Gastroenterol., 50:125–139.

10. **Najm WI. (2011):** Peptic Ulcer Disease. Primary Care , 38(3):383-94.

11. **Niv Y. (2010):** H. pylori/NSAIDS-Negative Peptic Ulcer-The Mucin Theory. Med Hypotheses, 75(5):433-5.

12. **Norman J, Hannah L, and Alexandra M. (2012):** Correlation between the endoscopic and histologic diagnosis of gastritis. Annals of Diagnostic Pathology, 16: 13-15.

13. **Prabu V and Shivani A. (2014):** An Overview of History Pathogenesis and Treatment of Perforated Peptic Ulcer Disease with Evaluation of Prognostic Scoring in Adults. Ann Med Health Sci Res., 4(1):22-29.

14. **Rezailashkajani M, Roshandel D, Shafaee S and, Zali MR. (2011):** A cost analysis of gastro-oesophageal reflux disease and dyspepsia in Iran. Dig Liver Dis., 40: 412-7.

15. **Seid A, Tamir Z and Demsiss W. (2018):** Uninvestigated dyspepsia and associated factors of patients with gastrointestinal disorders in Dessie Referral Hospital, Northeast Ethiopia. BMC Gastroenterol., 18: 13-17.

16. **Seyedmirzaei SM, Haghdoost AA, Afshari M and Dehghani A. (2014):** Prevalence of dyspepsia and its associated factors among the adult population in southeast of Iran in 2010. Iran Red Crescent Med J., 16(11): 14757-63.

17. **Shanthi KB, Gargi ST and Sumana Y. (2017):** Prevalence of H. Pylori in dyspepsia patients in a tertiary care hospital of Bangalore. International Journal of Contemporary Medical Research, 4(2): 509-511.

18. **Straus WL, Ofman JJ, MacLean C and Morton S. (2010):** Do NSAIDs cause dyspepsia? A meta-analysis evaluating alternative dyspepsia definitions. Am J Gastroenterol., 97(8):1951-8.

19. **Tongtawee T, Kaewpitoon S, Kaewpitoon N, Dechsukhum C, Loyd RA and Matrakool L. (2015):** Correlation between Gastric Mucosal Morphologic Patterns and Histopathological Severity of Helicobacter pylori Associated Gastritis Using Conventional Narrow Band Imaging Gastroscopy. Bio Med Research International, 15: 1155-1161.

20. **Varbanova M, Frauenschläger K, Malfertheiner P. (2014):** Chronic gastritis - An update. Best Pract Res Clin Gastroenterol., 28:1031-42

21. **Zhang CL, Geng CH, Yang ZW and Li YL. (2016):** Changes in patients' symptoms and gastric emptying after Helicobacter pylori treatment. World J Gastroenterol., 22(18):4585-93.

22. **Zhao B, Zhao J, Cheng WF, Shi WJ, Liu W, Pan XL and Zhang GX. (2014):** Efficacy of Helicobacter pylori eradication therapy on functional dyspepsia: a meta-analysis of randomized controlled studies with 12-month follow-up. J Clin Gastroenterol., 48(3):241-7.

دراسة مقارنة بين منظار المعدة والتشخيص الخلوي في تشخيص التهاب المعدة الكلي في مرضي قرحة المعدة الناتج عن إضطراب الهضم

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خلفيـــة البحـــث: القرحـــة الهضـــمية هـــي آفـــة ناتجـــة عـــن الحمـــض فـــي الســـبيل الهضـــمي والتـــي توجـــد عـــادة فـــي المعـــدة أو الاثنـــي عشـــر القريبـــة، وتتميـــز بغشـــاء مخـــاطي معـــرّف يمتـــد الخلـــل إلـــى الطبقـــة تحـــت المخاطيـــة أو البروبريـــا العضـــلية. التهـــاب المعـــدة والأمعـــاء الـــذي يظهـــر بشـــكل شـــائع فـــي الجـــزء العلـــوي مـــن الجهـــاز الهضـــمي ونحتـــاج إلى أخذ خزعات من أجل التشريح المرضي لتأكيد التهاب المعدة النسيجي.

الهـــدف مـــن البحـــث: تحليـــل العلاقـــة بـــين نتـــائج التنظيـــر الـــداخلي والتشـــخيص النســـيجي لالتهاب المعدة في مرضى القرحة الذين تم تشخيصهم حديثًا.

المرضـــى وطـــرق البحـــث: دراســـة مستعرضـــة مـــن المستشـــفى أجريـــت علـــى 180 مريضًـــا فـــي مستشـــفيات جامعـــة الحســـين لتقيـــيم الـــنمط التنظيـــري والتشـــريح المرضـــي لالتهـــاب المعـــدة بـــين المرضـــى الـــذين تـــم تشخيصـــهم حـــديثًا بقرحـــة هضـــمية عســـر الهضـــم لمـــدة لا تزيـــد عـــن 4 أســـابيع يحضـــرون إلـــى العيـــادة الخارجيـــة ووحـــدة المنـــاظير بقســـم الجهـــاز الهضـــمي والأمـــراض المعديـــة خـــلال الفتـــرة مـــن فبرايـــر إلـــى أغســـطس 2019.

نتـــائج البحـــث: نتـــائج التشـــريح المرضـــي مقارنـــة بنتـــائج التنظيـــر فـــي تشـــخيص عســـر الهضـــم القرحـــي، وجـــدنا أن 120 مريضـــاً (66.7٪) إيجابيـــة حقيقيـــة، 14 مريضـــاً (7.8٪) ســـلبية حقيقيـــة، 18 مريضـــاً (10٪) إيجابيـــة كاذبـــة و 28 مريضـــاً (15.6٪) ســـلبي خطـــأ. وهكـــذا كـــان للمنظـــار الـــداخلي حساســـية 81.8٪ ونوعيـــة 43.8٪ و PPV 86.9٪ وصـــافي القيمـــة الحاليـــة 33.3٪ ودقـــة 74.4٪ فـــي تشـــخيص التهـــاب

البنكرياس. تم فحص جرثومة المعدة أيضًا بواسطة صبغة giemsa ووجدت أن جرثومة المعدة الحلزونية إيجابية في 71.1٪ من الحالات التي تعني ارتباطًا كبيرًا بين عسر الهضم القرحي و H. pylori، وكان معظمها في الغار إيجابيًا في 128 مريضًا (71.1٪، H.) كانت الملوية البوابية إيجابية لدى 88 مريضاً (48.9٪) بينما كانت الحلزونية البوابية إيجابية في 75 مريضاً (41.7٪ وفقاً لأعراض المرضى نجد أن 41.1٪ (74) من مرضى القرحة يعانون من عسر الهضم يشكون من آلام شرسوفي ثم شبع مبكر كانت إيجابية 70 مريضا (38.9٪)، كان الامتلاء بعد الأكل موجبا 64 مريضا (35.6٪) يليه حرقان شرسوفي كان موجبا في 59 مريضا (32.8٪) من جميع المرضى الخاضعين للدراسة.

الاستنتاج: التهاب المعدة الشامل هو اكتشاف شائع لدى مرضى القرحة وعسر الهضم والتنظير الداخلي لديه حساسية عالية في تشخيص التهاب البنكرياس والمظهر الطبيعي بالمنظار لا يستبعد ذلك ولا يزال التشريح المرضي هو الأسلوب القياسي الذهبي.

الكلمات الدالة: منظار المعدة، التشخيص الخلوي، التهاب المعدة، قرحة المعدة، إضطراب الهضم.