

A CORRELATION OF LIFE STYLE AND PSYCHOLOGICAL DISORDERS WITH DYSPEPSIA AMONG ENDOSCOPY PATIENTS.

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Abstract

Introduction: Dyspepsia is a standard veering off, which is considered as the gastrointestinal issue which has a grand unpleasant effect on status of economy for individuals and countries, work effectiveness and individual fulfillment. **Objectives:** The objectives of this study are to evaluate the pervasiveness of dyspepsia among the patients proposed for endoscopy (upper), to assess the relationship between selected various lifestyle, demographic variables, disturbance due and dyspepsia and as well as to determine the pervasiveness of positive endoscopic (positive) results in contrast to endoscopy (negative) among proposed patients. **Methodology:** The cross-sectional observational was conducted on 400 patients proposed to the endoscopic department of Peoples Medical Hospital Nawabshah during the period from July 2020 to December 2020 by using convenient sampling technique. A total of 400 sample size was calculated by using the Slovin's Formula. Patients were administered with well-structured questionnaire. Data was analyzed by using SPSS version 23. Chi-square test was applied and significant association between different variables was determined. Statistical significance limit was accepted at $p \leq 0.05$ level. **Results:** Out of 400 patients, Dyspepsia pervasiveness was 60%. Endoscopic findings revealed that the functional dyspepsia was more protuberant than the organic dyspepsia. Variable were significantly related with dyspepsia as showed up by Rome IV models were, Age ($P= 0.001$), monthly income ($p= 0.02$), mental disturbing impact as anxiety, stress and depression ($p=0.001$ each), past medication and consultation for GIT ($p=0.001$) and infection of H. pylori ($p=0.001$). **Conclusion:** Dyspepsia is related with a course of action of components. Functional dyspepsia could be puzzled by managing lifestyle affinities change and giving more thought towards perspectives of patients.

Keywords: Lifestyle, Psychological stress, Dyspepsia, Endoscopy.

How to cite this article: Kumar H¹, Tunio SAP², Rind S³, Khokhar RH⁴, Shah SGM⁵, Bhatia MR⁶. **A CORRELATION OF LIFESTYLE AND PSYCHOLOGICAL DISORDERS WITH DYSPEPSIA AMONG ENDOSCOPY PATIENTS.** JPUMHS;2020;10:04,44-51.

DOI: <http://doi.org/10.46536/jpumhs/2020/10.02.256>

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Introduction

Gastrointestinal (GIT) ailments results in mortality, morbidity and cost effectiveness. Steady and repeated dyspepsia results, for instance, postprandial entire and epigastric torture are common in everyone. There is a quick impact of 25 to 40% paying little cerebrum toward the way that various occurrences don't search for healthcare¹. Instead of functional dyspepsia (FD), where there is no common explanation or injury represented to explain dyspeptic signs, organic dyspepsia prompts that a perceptible anatomic or pathophysiologic clarification subject for dyspeptic complaints². The particular explanation for FD is powerless yet it is supposedly related to particular lifestyle change checks, for instance, greater weight, greater aggravations which are psychological, alarming life affinities and greater unpredictable demographic characters than at later before. Other risk factors merge sexual

course, various characteristics of behavior, infection of H. pylori, intake of caffeine, smoking, and intake of NSAIDs³. H. pylori are bacterial infection of chronic type and is most prevalent in under-developing nations that developed nations. Dyspepsia patients have a high pervasiveness of infection of H. pylori⁴. Factors like psychological are the major cause of dyspepsia and various other factors related to gastrointestinal. Stress is also very important. Regardless, the cause is unknown⁵. Dyspepsia interventions and examinations are getting more erudite and costly. Resources, regardless; are confined in non-present day countries and clinical affiliations chiefs are wisely obliged to contain costs⁶. The immensity of this appraisal is that no near evaluations were driven in Jordan to join the dyspepsia as showed up by various zones, regardless of how it is an essentially unavoidable getting along fighting among everybody locally². In like way, basic heterogeneity in between assembles in various nations about the dyspepsia

and data opening was represented regarding the criticalness of pathogenesis and risk factors responsibility. The objectives of this study are to evaluate the pervasiveness of dyspepsia among the patients proposed for endoscopy (upper), to assess the relationship between selected various lifestyle, demographic variables, disturbance due and dyspepsia and as well as to determine the pervasiveness of positive endoscopic (positive) results in contrast to endoscopy (negative) among proposed patients.

Methodology

The cross-sectional observational was conducted on 400 patients proposed to the endoscopic department of Peoples Medical Hospital Nawabshah during the period from July 2020 to December 2020 by using convenient sampling technique. A total of 400 sample size was calculated by using the Slovin's Formula⁷. Patients were administered with well-structured questionnaire. Written consent was taken from the participants and preserved. By applying ROME IV diagnostic criteria⁸ dyspepsia was assessed and by using anxiety, depression and stress scale⁹ patient's psychological disturbances were assessed. The results of endoscopy were collected and absence or presence of organic pathology was recorded. Data was analyzed by using Statistical Package for Social Sciences (SPSS) version 23. Chi-square test was applied and significant association between different variables was determined. Statistical significance limit was accepted at $p \leq 0.05$ level.

Study variables

Gastrologists performed the endoscopies and the status of *H. pylori* was seen by using the rapid urease test (RUT) and then were categorized into three categories in which dyspepsia is related to;

1. Normal Endoscopy: where no difficult to miss masochist exposures were observed.
2. Normal endoscopy associated with gastropathy or inflammatory changes: Gastritis with mucosal injury and gastropathy with inflammatory reaction^{10,11}.
3. Abnormal endoscopy: any obvious abnormal organic presentations.

Inclusion criteria

Patients proposed for upper endoscopy with age above 15 years were included in the study.

Exclusion criteria

Patient under age of 15 years were excluded. Patient having the medical illness or having the heart attacks were excluded. Patients with any cancer or upper GIT cancers were excluded from the study.

Results

Socio-demographic results are mentioned in the Table 1. BMI Mean \pm SD is 26.5 \pm 6.9 and Median of interquartile level of Income as rupees is 400 (200). The results of endoscopy showed 19% were normal endoscopy, whereas normal with gastropathy or changes in inflammation were 50% and 31% were with abnormal endoscopy as shown in Figure 1. Biopsies were done for *H. pylori* during endoscopic strategy for 220 patients among which 132 (60%) showed the positive results for *H. pylori* as shown in Figure 2.

Discussion

The dyspepsia magnitude in this assessment plot that most of the picked patients for endoscopy (upper) were addressing symptoms of dyspepsia with pervasiveness of 60%. Considering, dyspepsia sureness in the present assessment was greater than that of other generally speaking assessments, which showed a point pervasiveness from 25% to 40%. This gathering in the presentations is no inadequacy subordinate upon the assessment people, intriguing models, sociocultural issues and result definition¹². Moreover, the methodology in scattering of conceivable causative portions like that of *H. pylori*, which is by a wide margin normal in non-modern countries or mental parts, may have an effect. Notwithstanding, the power here is considering everything, dark from that one concentrated in a close to report⁴. This evaluation results exhibited that utilitarian dyspepsia tended to around 66% of dyspepsia types. Concerning affinities and its relationship with dyspepsia, smoking was unimportant related with a thorough threat for dyspepsia improvement. Basically, smoking causes the complication of various GIT disorders^{13,14}. This shows that tremendous for workers of healthcare to underline the centrality of finishing as a key measure of prevention appearances salvation. In current assessment, participants concerning coffee utilize had equivalent threat for dyspepsia. Regardless, coffee may complicate dyspepsia signs among some patients and, at whatever point included, should be avoided¹⁵. Alcohol accreditation participants were startlingly at greater peril for dyspepsia development. As reported by Dibaise JK, et al.¹³, alcohol shows a colossal part in uninvestigated and functional dyspepsia.

Table1.Socio-demographic characteristics of the patients (n=400)

Variables	n	%
Age (year)		
15 – 40	160	40.0
41 – 65	178	44.5
> 65	62	15.5
Gender/Sex		
Male	173	43.25
Female	227	56.75
BMI groups		
Underweight (<18.5)	16	4.0
Normal (18.50 - 24.99)	152	38.0
Overweight (25.00 - 29.99)	132	33.0
Obese class I (30.00 - 34.99)	65	16.25
Obese class II (35.00 - 39.99)	22	5.5
Obese class III (\geq 40)	13	3.25
Marital Status		
Married	256	64.0
Widow	30	7.5
Divorced	8	2.0
Single	106	26.5
Education		
Non-educated	38	9.5
Primary	25	6.25
Secondary or Diploma	203	50.75
University	95	23.75
Master	38	9.5
Doctorate	1	0.25
Occupation		
Student	49	12.25
Employed	139	34.75
Unemployed	75	18.75
House wife	77	19.25
Retired	48	12.0
Others	12	3.0
Income status		
Not enough	127	31.75
Accepted	234	58.5
Enough	39	9.75

Lifestyle of the patient was assessed which is described in the Table 2.

Table 2. Patient’s lifestyle (n=400)

Variable	n	%
Smoking of Cigarette		
Yes	97	24.25
No	258	64.5
Ex (Previous smoker)	45	11.25
Smoking of Pipe		
Yes	37	9.25
No	329	82.25
Ex (Previous smoker)	34	8.5
Exercise		
Yes	66	16.5
No	334	83.5
Alcohol		
Yes	8	2.0
No	392	98.0
Drinking of Coffee		
Yes	132	33.0
No	268	67.0
Intake of Spicy food		
Yes	325	81.25
No	75	18.75

Grades of depression, anxiety and stress according to DASS scale were examined which are described in the Table 3.

Table 3. Grades of depression, anxiety and stress according to DASS scale* (n=400)

Grade	Normal		Abnormal							
			Mild		Moderate		Severe		Extremely severe	
	n	%	n	%	n	%	N	%	N	%
Stress*	195	48.75	44	11.0	67	16.75	55	13.75	39	9.75
Anxiety*	180	45.0	33	8.25	50	12.5	35	8.75	31	7.75
Depression*	247	61.75	49	12.25	52	13.0	24	6.0	28	7.0

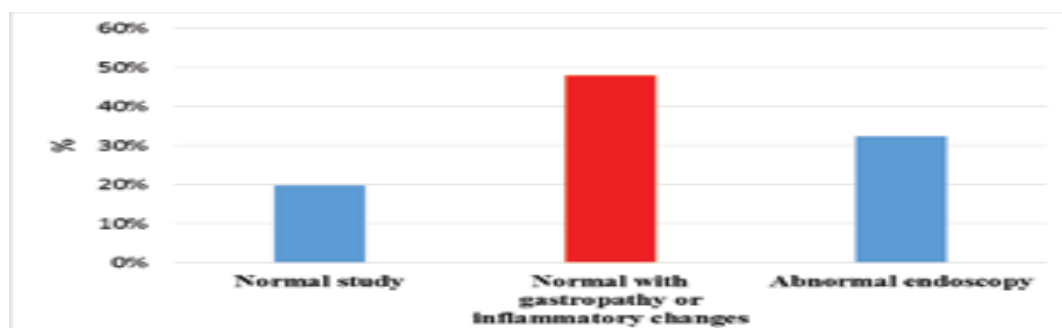


Figure 1. Endoscopic results in the patients of dyspepsia.



Figure 2. H. pylori in the patients (n=220, not done = 180)

Association between patient's demographic characteristics and dyspepsia is shown in Table 4.

Table 4. Association between patient's demographic characteristics and dyspepsia(n=400).

Variable		No dyspepsia		Dyspepsia with Normal endoscopy		Dyspepsia with normal endoscopy associated with gastropathy or		Dyspepsia with abnormal endoscopy		P
		n	%	n	%	n	%	n	%	
Age										0.00
	15 – 40	59	14.7	19	4.75	69	17.25	16	4.0	
	41 – 65	79	19.7	24	6.0	38	9.5	28	7.0	
	>65	29	7.25	7	1.75	9	2.25	23	5.75	
Sex										0.03
	Male	68	17.0	35	8.75	48	12.0	27	6.75	
	Female	103	25.7	31	7.75	59	14.75	29	7.25	
Obesity										0.02
	Yes	48	12.0	19	4.75	29	7.25	34	8.5	
	No	106	26.5	47	11.75	78	19.5	39	9.75	
Marital status										0.02
	Married	105	26.2	37	9.25	78	19.5	45	11.25	
	Not-	52	13.0	28	7.0	28	7.0	27	6.75	
Education										0.09
	Primary	28	7.0	26	6.5	12	3.0	7	1.75	
	Secondary	135	33.7	45	11.25	99	24.75	48	12.0	
Occupatio										0.04
	Student	18	4.5	9	2.25	9	2.25	9	2.25	
	Employed	57	14.2	30	7.5	38	9.5	13	3.25	
	Unemploy	27	6.75	14	3.5	22	5.5	11	2.75	
	Housewife	28	7.0	11	2.75	20	5.0	18	4.5	
	Retired	23	5.75	5	1.25	7	1.75	18	4.5	
	Others	4	1.0	2	0.5	4	1.0	3	0.75	
Incomestatus										0.02
	Not-	48	12.0	22	5.5	29	7.25	18	4.5	
	Accepted	96	24.0	29	7.25	68	17.0	38	9.5	
	Enough	12	3.0	12	3.0	17	4.25	11	2.75	

Association between patient's lifestyle and dyspepsia is shown in the Table 5.

Table 5. Association between patient’s lifestyle and dyspepsia(n=400).

Life style	No dyspepsia		Dyspepsia with Normal endoscopy		Dyspepsia with normal endoscopy associated with gastropathy or inflammatory changes		Dyspepsia with abnormal endoscopy		p
	N	%	n	%	n	%	n	%	
Cigarette smoking									0.184
Yes	18	4.5	11	2.75	28	7.0	18	4.5	
No	138	34.5	46	11.5	76	19.0	43	10.75	
Ex	14	3.5	4	1.0	2	0.5	2	0.5	
Pipe smoking									0.460
Yes	13	3.25	6	1.5	14	3.5	6	1.5	
No	144	36.0	58	14.5	98	24.5	52	13.0	
Ex	5	1.25	0	0.0	4	1.0	0	0.0	
Exercise									0.127
Yes	45	11.25	19	4.75	27	6.75	15	3.75	
No	113	28.25	49	12.25	88	22.0	44	11.0	
Alcohol									0.421
Yes	2	0.5	4	1.0	2	0.5	2	0.5	
No	157	39.25	68	17.0	115	28.75	50	12.5	
Coffee drinking									0.608
Yes	20	5.0	58	14.5	102	25.5	58	14.5	
No	139	34.75	9	2.25	10	2.5	4	1.0	
Spicy									0.638
Yes	68	17.0	28	7.0	52	13.0	22	5.5	
No	102	25.5	29	7.25	59	14.75	40	10.0	
Fruit									0.431
<5times/month	29	7.25	19	4.75	19	4.75	8	2.0	
2-4 week	52	13.0	28	7.0	50	12.5	28	7.0	
One time	70	17.5	19	4.75	48	12.0	30	7.5	
Vegetables intake									0.257
<5times/month	23	5.75	9	2.25	22	5.5	10	2.5	
2-4 week	78	19.5	40	10.0	38	9.5	20	5.0	
One time	68	17.0	19	4.75	48	12.0	25	6.25	
Fast food intake									0.507
<5times/month	135	33.75	49	12.25	88	22.0	50	12.5	
2-4 week	16	4.0	9	2.25	20	5.0	9	2.25	
One time	5	1.25	6	1.5	9	2.25	4	1.0	

Association between H. pylori and dyspepsia shown in Table 6.

Table 6. Association between H. pylori and dyspepsia (n=220).

Variable	No dyspepsia		Dyspepsia with Normal endoscopy		Dyspepsia with normal endoscopy associated With gastropathy or inflammatory changes		Dyspepsia with abnormal endoscopy		p
	n	%	n	%	n	%	n	%	
H. pylori									<0.001
Yes	48	21.81	6	2.72	58	26.36	15	6.81	
No	61	27.2	14	6.36	10	4.54	8	3.63	

Association between psychological disturbance and dyspepsia is shown in Table 7.

Table 7. Association between psychological disturbance and dyspepsia (n=400).

Variables	No dyspepsia		Dyspepsia with Normal endoscopy		Dyspepsia with normal endoscopy associated with gastropathy or inflammation		Dyspepsia with abnormal endoscopy		p
	n	%	n	%	n	%	N	%	
Stress grade									<0.001
Normal	118	29.5	13	3.25	39	9.75	20	5.0	
Mild	19	4.75	7	1.75	8	2.0	9	2.25	
Moderate	17	4.25	16	4.0	22	5.5	10	2.5	
Severe	9	2.25	12	3.0	32	8.0	9	2.25	
Extremely severe	2	0.5	10	2.5	18	4.5	10	2.5	
Anxiety grade									<0.001
Normal	123	30.75	18	4.5	28	7.0	20	5.0	
Mild	8	2.0	6	1.5	9	2.25	6	1.5	
Moderate	18	4.5	13	3.25	21	5.25	11	2.75	
Severe	6	1.5	8	2.0	18	4.5	9	2.25	
Extremely severe	4	1.0	22	5.5	40	10.0	12	3.0	
Depression Grade									<0.001
Normal	135	33.75	18	4.5	38	9.5	20	5.0	
Mild	20	5.0	9	2.25	21	5.25	12	3.0	
Moderate	10	2.5	18	4.5	23	5.75	10	2.5	
Severe	2	0.5	9	2.25	16	4.0	4	1.0	
Extremely severe	2	0.5	11	2.75	12	3.0	10	2.5	

Concerning H. pylori, by a wide edge a huge part of individuals who were examined represented to have positive results of H. pylori. Plainly the pervasiveness of H. pylori everything considered higher probability of showing dyspepsia (functional) utmost by and large gastropathy or changes in inflammation among participants. In this manner, H. pylori can be pursued for initial symptoms of dyspeptic prior the obvious GI endoscopy (upper) proposal.

Further, according to this assessment by a wide edge a large portion of dyspeptic patients were from a general point of view more associated with, tense or debilitate than non-dyspeptic patients. This appraisal exposures recommend that specific issues like psychological among dyspepsia patients who were proposed for GI endoscopy (upper) are exceptional in this present condition as there can be a strong relationship of mental ghastliness along with dyspepsia. Over the long haul, these results show that in dyspepsia patient's stress was generally present. It is indicated that patients with dyspepsia (functional) revelations after endoscopy have strong relationship with stress and morbidity of

psychiatry, for instance, depression and anxiety. These findings were similar with other findings^{16,17}.

Conclusions

The evaluated level of relationship among risk factors and dyspepsia, including lifestyle disturbances and disorders of psychology, remained in synchronization with numerous dissipated assessments from numerous other republics. Utmost of the dyspepsia circumstances would have stayed distributed as functional and do not require any treatment except infection of H. pylori that is basically most prevalent in this world.

Disclosures in this, and other indistinguishable assessments, are admirable markers for getting specialists seek after a moderate methodology, with vigilant history-taking, clinical evaluation and examination, instead of proposing most of the patients to experience endoscopies, near if there are convincing symptoms.

Recommendations

After perception of the insistence of numerous dyspepsia types, and planning reasonable modalities of fitting association, is

major to establish essentials, diminish insignificant illustrative systems, limit pressures on clinical affiliations structure and diminishing expense.

Patient's counseling towards sound lifestyles, and authentic relationship of central mental issues, are instrumental in convincing clinical affiliations approach, and keeping an essential separation from of silly endoscopies.

ETHICS APPROVAL: The ERC gave ethical review approval

CONSENT TO PARTICIPATE: written and verbal consent was taken from subjects and next of kin

FUNDING: The work was not financially supported by any organization. The entire expense was taken by the authors

ACKNOWLEDGEMENTS: We would like to thank the all contributors and staff and other persons for providing useful information.

AUTHORS' CONTRIBUTIONS: All persons who meet authorship criteria are listed as authors, and all authors certify that they have participated in the work to take public responsibility of this manuscript. All authors read and approved the final manuscript.

CONFLICT OF INTEREST: No competing interest declared.

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