

A Study to Assess the Presence of Gerd Based on Salivary pH Test and its Association with Selected Life Style Factors among College Going Students in Selected Arts and Science College at Kattumannarkoil, Cuddalore District

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Abstract: *The study was conducted to identify the GERD among college going students. A total of 456 students were selected from various departments in MRK Arts & Science college, Kattumannarkoil. Self Administered Associate Factors Questionnaire developed by the researcher. Identify the GERD by Salivary pH test using pH strip. RESULT: GERD association with many factors and 24% of Under Graduate students had GERD.*

Keywords: Salivary pH, Gastro Esophageal Reflux Disease

1. Introduction

A digestive abnormality which occurs when the acidic stomach food, juices or other fluids backs up to the esophagus from the stomach, this condition is called the "Gastro Esophageal Reflux Disease" (GERD). GERD is common among people from all age groups even infants to aged adults. This is a chronic condition which takes place when the bile or acid of stomach flows back to the food piper and causes an irritation in the lining. The early symptoms of GERD are the heart burn and acid reflux more than two times in a week. In case a person is asthmatic, acid reflux can worsen the condition by irritating the lungs and the airways. As a result, this can result in progressively become more serious other oral manifestations of left untreated. Gastro Esophageal Reflux Disease (GERD) is quite common globally, with a higher expenditure data in the health care industry. Data related to the GERD prevalence in terms of community in India is quite scarce. The present study was carried out for determining the GERD prevalence and for identifying its potential connotations. Wang et al., (2016) conducted BMC Gastroenterology cross - section research which resulted in higher prevalence of GERD in general population of south - India. Risk - factors for pre - disposal of GERD in the population includes increasing BMI, age, low education level and resident of urban area.

Statement of the problem

"A study to assess the presence of GERD based on Salivary pH test and its association with selected life style factors among college going students in selected Arts and Science College at Kattumannarkoil, Cuddalore District".

Objectives

- 1) To assess the GERD based on salivary pH test.

- 2) To find out the association between GERD with selected life style factors.

2. Methodology

Material and Methods:

A Quantitative approach, This study was carried out among college going girls studying in "MRK Arts and Science College, Kattumannarkoil, Cuddalore District" from September 2020. A total 456 college going girls aged between 18 – 21 were selected and study was conducted.

Study Design:

Descriptive Survey method.

Study Duration:

Three months period from September 2020.

Sample Size:

Undergraduate Girls students of 456 studying in MRK Arts and Science College.

Inclusion Criteria:

- 1) College going girls studying UG program in MRK Arts and Science College.
- 2) Between the age group of 18 to 21 years.
- 3) Willing to participate.
- 4) Who can able to communicate in local language.

Exclusion Criteria:

- 1) Who had other illness such as hypo or hyper thyroidism.
- 2) Who were absent during data collection period.

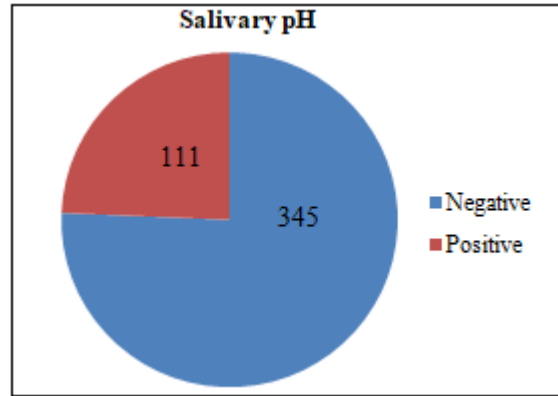
Data collection procedure

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The data were collected from September 2020. Obtained formal consent from the Educational Institution and study subjects were chosen based on this Inclusion Criteria. Obtained consent from the study subjects and detailed explanation was given regarding the purpose of the study. confidentiality being maintained. Researcher instruct the study subjects do not eat ant food or drink any fluids before half an hour in the salivary pH test. Salivary pH test was done by using pH strip. The test done in 456 students. next to assess the associated factors for GERD by using self administered questionnaire.



Pie diagram showing the number of students with GERD

3. Result

111 students had positive in salivary Ph (below 6) and 345 students had negative in salivary pH (6 and above) out of 456 students.

Table: Association between GERD with selected life style factors, N=456

S. No	Factors Associations with GERD	Present		Absent		Chi Square	P value	
		No	%	No.	%			
1.	Do you skip Breakfast?	a) Daily	58	23.6	188	76.4	1.3402	0.512
		b) 2 - 3 days/week	7	18.4	31	81.6		
		c) No	46	26.7	126	73.3		
2.	Do you eat Outside home?	a) >3 times/week	49	22.9	165	77.1	0.8922	0.640
		b) 2-3 times/week	56	26.3	157	73.7		
		c) No	6	20.7	23	79.3		
3.	Do you drink coffee?	a) >3 cups/day	33	20.0	132	80.0	3.5982	0.165
		b) 1-3 cups/day	66	25.9	189	74.1		
		c) No	12	33.3	24	66.7		
4.	Do you drink aerated drinks?	a) >3 times/week	71	25.0	213	75.0	2.6282	0.269
		b) 1-3 times/week	17	18.5	75	81.5		
		c) None	23	28.7	57	71.3		
5.	What kind of food you take?	a) Hot	17	17.0	83	83.0	3.8372	0.147
		b) Warm	89	26.3	250	73.7		
		c) Cold	5	29.4	12	70.6		
6.	What is the level of your Dinner?	a) Heavy	23	37.1	39	62.9	12.6053	0.006
		b) Moderate	54	27.6	142	72.4		
		c) Light	11	20.8	42	79.2		
		d) None	23	15.9	122	84.1		
7.	Are you a Vegetarian or Non vegetarian food eater?	a) Vegetarian	28	29.2	68	70.8	1.5371	0.215
		b) Non - Vegetarian	83	23.1	277	76.9		
8.	How often you take Spicy Food?	a) High	64	23.9	204	76.1	4.4482	0.108
		b) Moderate	41	28.7	102	71.3		
		c) Non Spicy Food	6	13.3	39	86.7		
9.	How often you eat Chocolates?	a) Daily	15	44.1	19	55.9	8.8812	0.012
		b) >3 times/week	30	26.3	84	73.7		
		c) <3 times/week	66	21.4	242	78.6		
10.	Do you eat heavily?	a) Yes	31	23.8	99	76.2	0.0241	0.876
		b) No	80	24.5	246	75.5		
11.	How often you take fatty foods?	a) Daily	25	27.2	67	72.8	1.8202	0.403
		b) >2 times/week	80	23.1	267	76.9		
		c) 1-2 times/week	6	35.3	11	64.7		
12.	How often you take citrus Fruits or drink Juices?	a) None	28	19.2	118	80.8	5.3702	0.068
		b) 1-2 times/week	47	24.0	149	76.0		
		c) 3-5 times/week	36	31.6	78	68.4		
13.	Do you take any drugs?	a) Antibiotics	9	23.1	30	76.9	8.9652	0.011
		b) NSAIDs	22	40.7	32	59.3		
		c) None	80	22.0	283	78.0		
14.	Do you wake up while sleeping?	a) 2-3 times/night	26	24.5	80	75.5	6.1242	0.047
		b) 1 time/night	49	30.4	112	69.6		
		c) None	36	19.0	153	81.0		
15.	Do you go to sleep Immediately after eating?	a) Yes	46	29.9	108	70.1	3.8581	0.049
		b) No	65	21.5	237	78.5		

16.	What is the type of your Weight?	a) Obesity	60	24.4	186	75.6	3.7342	0.155
		b) Under Weight	31	20.7	119	79.3		
		c) Normal	20	33.3	40	66.7		

Table shows the association between GERD with life style factors.

The Chi square test Value obtained revealed that there was no significant association between GERD with selected life style Factors such as AF1, AF2, AF3, AF4, AF5, AF7, AF8, AF10, AF11, AF12, AF16. The Chi square test Value obtained for the significant association between GERD with selected life style Factors such as AF6, AF9, AF13, AF14, AF15 ($P < 0.05$).

4. Conclusion

In conclusion, while about 24% of undergraduate students had GERD. Frequent consumption of chocolates, going to sleep immediately after eating and consume the level of dinner was very high, etc. was associated with GERD. Some more similar studies are required to be conducted to explore the part psychological factors play in the student's illness experience.

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