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Spectrum of Clinical Profile and Upper Gastrointestinal Endoscopic Findings in Patients with Dysphagia and Its Relation to Alarm Symptoms: A Prospective Cross Sectional Study at a Tertiary Care Centre

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I. Introduction

Dysphagia is derived from the Greek word *dys* (difficulty,disordered) and *phagia(*to eat).It refers to the sensation where food is hindered in its passage from the mouth to the stomach. It is of two types – Oropharyngeal and Esophageal. Esophageal dysphagia can be either motor or mechanical. Symptoms vary depending upon the degree of luminal obstruction, associated esophagitis and type of food taken. Dysphagia can be to solids alone or to both solids and liquids. (1).Prevalence of Dysphagia among individuals >50 yrs of age range from 16% to 22% (2).Prevalence of dysphagia among young adult population was upto 17% with a peak in 40-49 yrs for both males and females, indicating that dysphagia is a very common condition in the general population(3).Upper GI Endoscopy is the first choice in evaluation of new onset dysphagia. It has excellent specificty for strictures and tumors (4)

II. Materials And Methods:

Study design: prospective cross sectional study
Study period: September 2018 – February 2019
Sample size : 135

Inclusion criteria:

1) Patients with dysphagia with or without alarm symptoms attending the outpatient clinic of Gastroenterology department during the period were selected for study.
2) Patients with age group of > 18 years.
3) Patients with alarm symptoms
4) Patients willing to undergo upper GI endoscopy were included in the study

Exclusion criteria:

1) Patients who had an upper GI endoscopy for indications other than dysphagia and
2) Not willing for endoscopy were excluded from the study.

From September 2018 till February 2019, data of patients presenting with dysphagia were recorded in prospective manner.

Data included age, sex, and duration of dysphagia. And then the patients were subjected to Upper Gastrointestinal Endoscopy (UGIE) under Local Anesthesia as out - patient basis.

All the relevant data were collected prospectively.

In this study, a total 135 patients were recruited and the data was entered in MS-Excel sheet for analysis.

III. Results

Total of 135 patients were included in the study, 63 males and 72 females. Majority of patients were seen in the age group of 41 – 60 yrs (43.7 %). Clinically significant weight loss and vomiting was seen in around 22.2 % of the patients.

Endoscopy was done in all patients presented with dysphagia. The common cause of dysphagia among the malignant etiology was found to be Ca Oropharynx (15.5%), followed by Ca Esophagus(6%), Ca OG JN (2.96%).

Among the benign causes the most common etiology was due to postcricoid web (16%), followed by esophageal strictures (15%). Endoscopy was found to be normal in 37 patients (37%).

Malignant etiology was found to be more common among males. Normal endoscopy was predominant among females. Benign causes were also commonly found in females

Other various causes of dysphagia are elicited in table

Table 1: Total and Age distribution in patients with dysphagia

TOTAL	135	
MALE	63	46.7%
FEMALE	72	53.3%

Table 2: Sex distribution in patients with dysphagia

AGE	NO OF PATIENTS
<20YRS	1
21- 40 YRS	51
41-60 YRS	59
61-80 YRS	24
>81 YRS	1

Table 3:Various etiologies in patients with dysphagia

CAUSES	**MALE**	**FEMALE**	**TOTAL**
ACHALASIA	1	1	2
GASTRITIS	6	4	10
GROWTH ESOPHAGUS	7	2	9
CA OROPHARYNX	18	3	21
CANDIDIASIS	2	2	4
ESOPHAGEAL STRICTURE	6	9	15
DISTAL ESOPHAGITIS	6	1	7
ESOPHAGEAL ULCERATION	2	1	3
GROWTH OG JN	3	1	4
LARGE ESOPHAGEAL VARICES	1	0	1
LAX LES	1	4	5
LINITIS PLASTICA	1	0	1
POST CRICOID WEB	2	14	16
NORMAL	7	30	37
TOTAL	63	72	135

Table 4:Various malignant causes in patients with dysphagia

MALIGNANT CAUSES	**MALE**	**FEMALE**	**TOTAL**
GROWTH ESOPHAGUS	7	2	9
CA OROPHARYNX	18	3	21
GROWTH OG JN	3	1	4
LINITIS PLASTICA	1	0	1
TOTAL	29(82.9%)	6 (17.1%)	35 (25.9%)

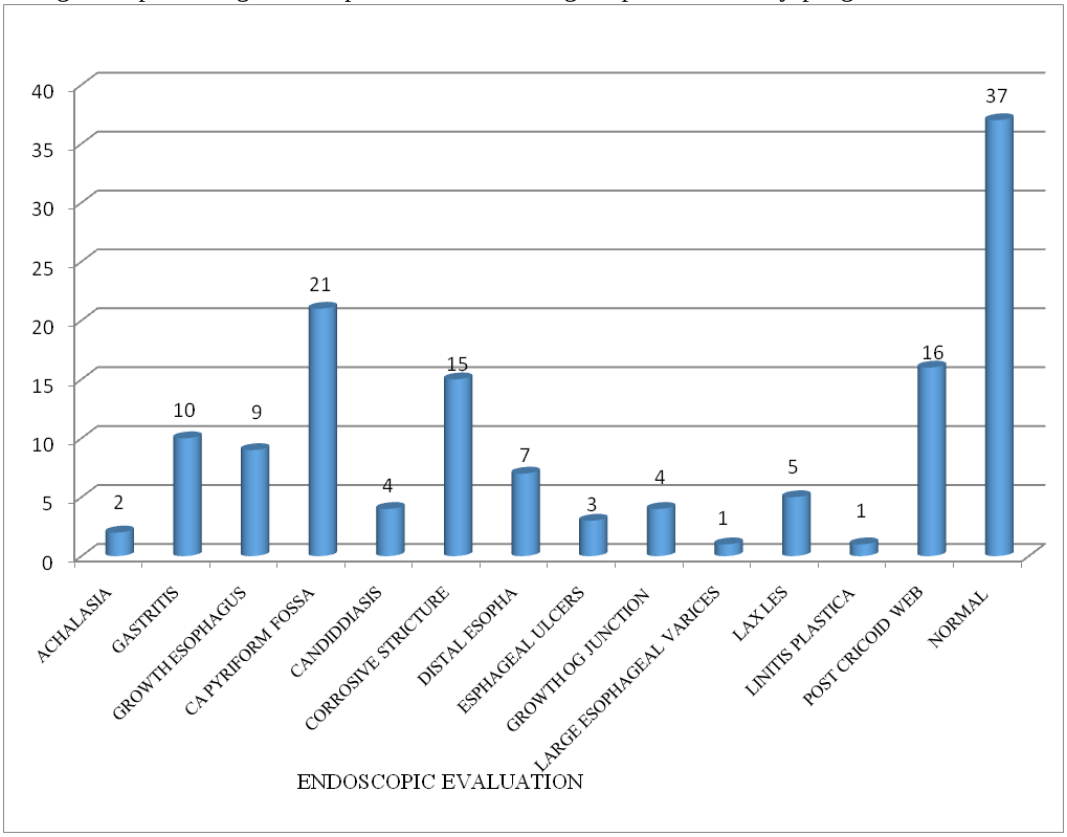
Table 5:Various benign causes in patients with dysphagia

BENIGN CAUSES	**MALE**	**FEMALE**	**TOTAL**
ACHALASIA	1	1	2
GASTRITIS	6	4	10
CANDIDIASIS	2	2	4
CORROSIVE STRICTURE	6	9	15
DISTAL ESOPHAGITIS	6	1	7
ESOPHAGEAL ULCERATION	2	1	3
LARGE ESOPHAGEAL VARICES	1	0	1
LAX LES	1	4	5
POST CRICOID WEB	2	14	16
NORMAL	7	30	37
	34(34%)	66(66%)	100

Table 6:Various symptom presentations in patients with dysphagia

SYMPTOMS	NO OF PATIENTS	PERCENTAGE
HEART BURN	40	29.6 %
EPIGASTRIC PAIN	10	7.4 %
WEIGHT LOSS	30	22.2 %
VOMITING	30	22.2 %
ANEMIA	15	11.1 %
MELENA	10	7.4 %

Fig: Bar diagram representing endoscopic evaluation findings in patients with dysphagia



IV. Discussion

0ur study involved consecutive 135 patients presented to us with symptoms of dysphagia, for a period of 6 months and it was a observational study .

Gupta et al.(5) reported a survey of 100 consecutive endoscopies in elderly patients with suspective obstructive dysphagia. Seventy eight patients had positive findings. Six patients with negative endoscopies. Malignancy of the GI tract was the commonest cause of dysphagia.

Similar to the study by Gupta et al, our study also involved 135 consecutive patients with dysphagia and showed positive endoscopic findings in 98 patients and normal endoscopy in 37 patients.

In the study by Gupta et al the most common etiology of dysphagia was malignancy involving upper gastrointestinal tract Fifteen patients had upper gastro intestinal malignancy - 12 were esophageal carcinoma and 3 - gastric malignancy.

In our study the common etiology of dysphagia was due to malignancy involving oropharynx in 21 patients. Upper gastrointestinal malignancy in 14 patients with esophageal malignancy in 9 and gastric malignancy in 5 patients

In a similar study by Varadarajulu Shyam et al., (6) upper gastro intestinal endoscopy was done as the initial test to evaluate dysphagia in 1649 patients

In the study by Varadarajulu Shyam et al abnormal findings at endoscopy were found in 70% of the patients and a major pathology was seen in 54%. Cancer was found in 4% of the patients. The esophagus was normal in 29% of patients.

In the similar study done by Nafees A Qureshi et al,(7) they reported esophagus was abnormal in 678 cases (74%) and biopsies were taken in 428 patients (47%).

In the study by Gupta et al ,(5) among the benign causes, stricture of the esophagus was the commonest finding. In 20 patients superficial esophagitis and 10 patients corrosive stricture were noted. In 8 patients gastro esophageal reflux disease, in 5 patients grade 3 or 4 esophageal varices noted. In 3 patients achalasia cardia noted .

In our study, Post Cricoid web was seen in 16 patients, followed by esophageal stricture in 15 patients. Gastritis was seen in 10 patients, Esophageal Candidiasis in 4, Achalasia in 2 , Distal Esophagitis in 7,Esophageal Ulceration in 3, Lax LES with Hiatus Hernia in 5, Large Esophageal Varices in 1 patient.

From our data, it was observed that the malignant causes of dysphagia were more commonly seen in the males, attributed to the associated risk factors of alcohol consumption, smoking and tobacco chewing. They were also associated with significant weight loss and anemia.

Large esophageal varices was found in one patient in our study as the cause of dysphagia similar to the study by Dr Siddharth Sahu, KS Kher et al in 2017 (8) found large esophageal varices in 4 cases as the cause of dysphagia

In our study group, the patients in the age group 41–60 showed maximum incidence of carcinoma, i.e., 53% of total cases.

Shil *et al*.(9) observed that esophageal carcinoma was seen in sixth (51–60 years) decade of life followed by seventh and fifth decades. Population-based data reveal that the esophageal cancer incidence peaks in the sixth decade as in most parts of the world.

Most of the functional dysphagia and post cricoid web, esophageal stricture was seen in the females and malignancies involving the oropharynx and gi tract was found in males .

Many earlier studies by Puhakka and Aitsalo, Malik *et al*., Afridi *et al*., and Salih *et al*. reported a high ratio of males for this cancer as compared to females and also have stated that esophageal cancer is 4 times more common and slightly more lethal in men than in women (10,11,12,13)

In the study by Varadarajulu Shyam et al. , they concluded that the upper gastro intestinal endoscopy is an effective and appropriate tool for the initial evaluation of patients presenting with dysphagia .
Upper GI endoscopy helps in early diagnosis as well as in therapeutic interventions at the right time

V. Conclusion:

Upper GI Endoscopy is virtually always needed in the evaluation of esophageal dysphagia, allows tissue sampling, and, in many cases, is therapeutic, obviating the need for further evaluation. It is a very effective and appropriate tool to diagnose the causes of dysphagia in both the young and especially the elderly . Alarm symptoms like anorexia , vomiting, wt loss, melena may be more suggestive of malignant cause.upper GI endoscopy will help in making an early and definite diagnosis . Benign lesions like GERD, erosive gastritis and other conditions causing strictures can identified and treated accordingly.Endoscopy also plays a main role in identifying ENT causes of dysphagia . Further evaluation is recommended in patients with the absence of any abnormality in upper gi endoscopy but with persistent symptom of dysphagia
This study helps in identifying the changing trends in the existing causes of dysphagia and evaluate the emergence of new causes and their association with high risk factors

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