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Original Research Article

Endoscopic evaluation of dysphagia

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ABSTRACT

Background: Dysphagia basically means difficulty in swallowing. Dysphagia may result from structural or neuromuscular disorders of the esophagus. Endoscopy is the main indication for patients with dysphagia to determine the underlying etiology. The main objective of the study was to evaluate the plethora of disorders leading to dysphagia in this region of Punjab.
Methods: The present study was carried out in the department of General Surgery at Sri Guru Ram Das Institute of Medical Sciences And Research, Sri Amritsar. Gastrointestinal endoscopy was performed both on the patients admitted and those who presented at outpatient department. The diagnosis was confirmed by biopsy.
Results: The sample consisted of 100 patients presenting with dysphagia. Total number of males were 42% and 58% females. It was found that the most common age group presenting with dysphagia was 41-60 years followed by 61-80 years. It was also observed that the most common cause of dysphagia was growth of esophagus (24%). Lower esophagus was most common site of lesion found in 30 (45%) of the patients. Squamous cell carcinoma was found in 52 (24%) of the patients. Maximum patients (84%) were of lower socioeconomic status. Dysphagia was more common in females as compared to males.
Conclusions: It can be concluded that prevalence of dysphagia in Indian settings is more in the middle to the elderly age group with a female preponderance. Endoscopy plays an important role in detecting premalignant conditions leading to dysphagia.

Keywords: Dysphagia, Endoscopy, Carcinoma esophagus

INTRODUCTION

Dysphagia is a situation in which the person experiences difficulty in swallowing during the initial phase of swallow and it is called as oropharyngeal dysphagia whereas oesophageal dysphagia is difficulty in passage of food from mouth to stomach.[1] The most commonly encountered symptom in the gastroenterology practice is orophyarngeal dysphagia.[2] Dysphagia may result from structural or neuromuscular disorders of the esophagus. Patients with structural disorders of the esophagus typically have dysphagia with solids alone, in contrast to patients with motility disorders who present with both liquid and solid food dysphagia. Structural disorders include inflammatory and malignant conditions. Benign inflammatory strictures result from collagen and fibrous tissue deposition in patients with severe or chronic inflammation in the esophagus, whereas malignant strictures result from intrinsic luminal tumor growth or extrinsic esophageal compression. Neurological causes include stroke, Bells palsy, Parkinson disease, oculomuscular dystrophy etc.

Peptic strictures, a sequela of gastroesophageal reflux disease, have been reported to account for up to 80% of

all benign esophageal strictures. However, their incidence appears to have decreased in the last decade because of the widespread use of proton pump inhibitors. With the reported increase in its prevalence, eosinophilc esophagitis is now recognized as a common benign cause of dysphagia. Motility disorders that cause dysphagia include achalasia, diffuse esophageal spasm, and hypomotility secondary to scleroderma and other connective tissue disorders.

Endoscopy is indicated in patients with dysphagia to determine the underlying etiology, to exclude malignant and premalignant conditions, assess the need for therapy, and perform therapy. Early detection of esophageal carcinoma improves patients survival and may lead to cure with better quality of life by much less invasive endoscopic treatment than esophagectomy. Lugolchromoendoscopy, iodine mucosal staining by spraying lugol solution, is known to improve the endoscopic visualization of esophageal squamous dysplasia and carcinoma.[3]

Objectives

The main objective of present study was to evaluate the plethora of disorders leading to dysphagia in this part of north India. The objectives of the present study were to study incidence of various esophageal diseases with respect to age, gender and socioeconomic status in Sri Guru Ram Das Institute of Medical Sciences and Research, Amritsar and to study the pattern of presentation of various esophageal diseases through endoscopy.

METHODS

This study was a prospective, observational study conducted in Sri Guru Ram Das Institute of Medical Sciences and Research, Amritsar on 100 patients presenting with dysphagia. Patients underwent upper gastrointestinal endoscopy both on in patient department and outpatient department basis in Sri Guru Ram Das Institute of Medical Sciences and Research. The diagnosis was confirmed by biopsy taken during endoscopy and sent for histopathological examination. Patients were treated accordingly. The study was conducted from January 2017 to December 2018.

Inclusion criteria

Patients above 18 years age presenting with dysphagia were considered.

Exclusion criteria

Patients with age less than 18 years diagnosed with esophageal disease on follow up, with co morbid diseases like severe ischemic heart disease, cervical spondylosis, trismus etc., with active and severe hematemesis and having dysphagia due to neurological disease.

RESULTS

The present study was conducted on 100 patients above 18 years of age of either sex presenting with dysphagia in the department of General Surgery at Sri Guru Ram Das Institute of Medical Sciences and Research, Vallah, Sri Amritsar. After an informed consent the upper gastrointestinal endoscopy was performed and all the endoscopic findings were documented. Primary outcomes of the study were the incidence of dysphagia with respect to age, sex, socioeconomic status and pattern of various esophageal pathologies.

Table 1: Age wise distribution of the study population.

Age group (in years)	N	%
<20	3	3.0
21-40	12	12.0
41-60	49	49.0
61-80	35	35.0
>80	1	1.0
Total	100	100.0

In the present study, it was found that the maximum number of patients with dysphagia were in the age group 41-60 years. The second most common age group was 61-80 years with 35 patients. The incidence was less in younger group i.e., below 40 years.

Table 2: Gender wise distribution of the study population.

Gender	N	%
Male	42	42.0
Female	58	58.0
Total	100	100.0

Table 3: Endoscopic findings of the study population.

Endoscopic diagnosis	N	%
Growth esophagus	24	24.0
Others	19	19.0
Stricture esophagus	16	16.0
Hiatus hernia	14	14.0
Normal study	7	7.0
Esophagitis	7	7.0
Gastroesophageal reflux disease	6	6.0
Stricture cricopharynx	3	3.0
Growth Stomach	2	2.0
Growth hypopharynx	1	1.0
Growth cricopharynx	1	1.0
Total	100	100

As shown in Table 2 out of 100 patients 42 were male and 58 were female. Hence present research found that there was female preponderance.

It can be inferred from 3 most that common cause of dysphagia found on endoscopy was esophagus growth which was seen in 24 patients out of 100. 19 patients had other pathologies such as leiomyoma, esophageal candidiasis and achalasia. 16 patients presented with stricture esophagus and 14 patients had hiatus hernia. Gastroesophageal reflux disease was seen in 6 patients only. 7 patients had no evidence of any pathology on endoscopy.

Table 4: Site of lesion in esophagus.

Site of lesion	N	%
Upper esophagus	8	12.0
Lower esophagus	30	45.0
Middle esophagus	28	43.0
Total	66	100

As per Table 4 the most common site of esophagus causing dysphagia was lower esophagus in 30 patients followed by middle esophagus in 28 patients. Upper esophagus was the least common site to be involved-only 8 patients.

Table 5: Biopsy results.

Biopsy findings	N	%
Adenocarcinoma	14	29.0
Squamous cell carcinoma	24	52.0
Benign lesions	9	19.0
Total	47	100.0

From Table 5 it can be observed squamous cell carcinoma was found to be the most prevalent histological type (52.0%) followed by adenocarcinoma (29.0%). Benign lesion was the least to be seen.

Table 6: Socio-economic status of study population.

Socioeconomic status	N	%
Upper	2	2
Lower	84	84
Middle	14	14.0
Total	100	100

Maximum number of patients (84%) presenting with dysphagia belonged to lower socioeconomic group.

DISCUSSION

Dysphagia is a distressing symptom which indicates a delay in the passage of solids and liquids from the mouth to the stomach. Many a times patients present so late, that they have multiple associated comorbidities. So the diagnosis should be urgently sought. Dysphagia should be distinguished from odynophagia which is usually a discomfort or pain on swallowing hot or cold liquids. The differential diagnosis of dysphagia lies between esophagogastric malignancy, reflux disease with a stricture or a motility disturbance. The duration of the problem is the most valuable clinical guide to the diagnosis and endoscopy has proven to be the most rewarding investigation.[4] Endoscopy is more sensitive than radiology for identifying subtle mucosal lesions of the esophagus such as esophagitis caused by gastroesophageal reflux or infection. It has been observed that endoscopy is more cost effective in terms of an initial diagnostic approach and therapeutic management (Hiroshimakino).[5-7]

This study was conducted to study the incidence of various esophageal diseases with respect to age, sex, socioeconomic status, pattern of presentation of various esophageal diseases through endoscopy and to study the need for different therapeutic procedures according to cause found through endoscopy.

Age incidence

In present study it was found that the most common age group presenting with dysphagia was 41-60 years followed by 61-80 years. In a study conducted by Dutta et al, they also found the most common age group presenting with dysphagia was similar to findings of present study. The most likely factors contributing to this finding can be malnutrition, obesity, poor oral health, low intake of fresh fruits and vegetables, alcohol and tobacco consumption, smoking, red meat, hot tea drinking.[8]

Gender incidence

We found out dysphagia to be more common in females as compared to males. Findings of present research was supported by Bhattacharyya on the prevalence of dysphagia among adults.[9]

Socioeconomic status

Majority of the patients presenting with dysphagia belonged to the lower socioeconomic status. The contributing factors can be poor oral health, malnutrition, less intake of fruits and vegetables, cigarette smoking and alcohol intake.[10]

Biopsy findings

Results of biopsy taken from the growth in esophagus, stomach and pharynx showed that the squamous cell carcinoma is most common type, followed by adenocarcinoma. Squamous cell carcinoma was mostly seen in mid esophagus, whereas adenocarcinoma was the predominant in distal esophagus and stomach. In a study conducted by cancer research United Kingdom, squamous cell carcinoma accounted for less than a quarter of all esophageal cancers while adenocarcinoma accounted for more than half in England.[11]

Being a tertiary care hospital in a rural setup of India, the presentation of dysphagia with respect to age, gender,

anatomical location and histological type was different from previous studies which can be attributed to different geographical distribution.

CONCLUSION

From the present study, it can be concluded that prevalence of dysphagia in Indian settings is more in the middle to the elderly age group with a female preponderance and affecting the lower socioeconomic class. Squamous cell carcinoma of oesophagus was found to be the most common cause of dysphagia which can be due to rising incidence of gastroesophageal reflux disease or Barret's esophagus. Hence role of endoscopy is much valuable in detecting these premalignant conditions to prevent this manifestation.

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Ethical approval: The study was approved by the Institutional Ethics Committee

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