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Research Article

Clinical Profile of Patients with Esophageal type of Dysphagia in a South Indian Tertiary Care Center

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Abstract

Dysphagia, defined as impairment of the swallowing process, causes significant morbidity to patients and reduction in the quality of life. Further classified as oropharyngeal (transfer) and esophageal (transit) dysphagia, this age-old symptom can be due to a myriad of causes including benign conditions like cricopharyngeal web, peptic strictures to conditions with dismal prognosis like oesophageal malignancy. Early diagnosis of the etiology and treatment helps in preventing significant morbidity associated with this condition. In this study, we revisit the profile of patients who has presented to us with esophageal type of dysphagia.

Keywords: Dysphagia; Esophagus; Achalasia; Motility Disorders

Introduction

Dysphagia is defined as difficulty in swallowing, which can either be due to the issues associated with initiation of swallowing, which is known as oropharyngeal or transfer dysphagia, or could be due to the impediment in the path of food bolus in reaching stomach from the cricopharynx, which is known as oesophageal or transfer dysphagia [1]. In the former group, patients typically present with difficulty in initiation of swallowing, with occasional nasal regurgitation, and coughing immediately on food intake, while in the latter, patients may complain that the food is stuck at some point in the retrosternum, or associated need of drinking excess water to help the bolus traverse down the esophagus. Based on the symptom onset, dysphagia might be acute or non-acute. Food bolus impaction or cerebrovascular accidents involving the lower cranial nerves are common causes of acute dysphagia. The symptoms can also be further categorised based on occurrence and progression of symptoms. Research on the clinical profile and symptomatology of dysphagia in India is lacking, with more studies done on oropharyngeal dysphagia associated with stroke, rather than esophageal dysphagia [2]. In this study, we analyse the clinical and epidemiological profile of patients who has presented to us with esophageal type of dysphagia.

Methods

A retrospective analysis of the records of all patients aged above 18 years and underwent endoscopy in our institute for the complaints of dysphagia was done. Patients who presented in one-year span from November 2023 to November 2024 was included in the analysis. Symptoms for which the patient attended outpatient department or got admitted, their associated comorbidities, history of any substance abuse, and other relevant history was noted from the endoscopy register and case sheets. Endoscopy findings were noted along with any significant finding in imaging modalities like CT scan and Barium imaging. Oropharyngeal and neurological causes of dysphagia were excluded along with patients presenting with acute ingestion of a foreign body or acute caustic ingestion. Relevant statistical analysis was done using SPSS v21.0. Normally distributed variables were expressed as mean ± standard deviation (SD), and continuous variables with skewed distribution as median.

Results

A total of 315 patients were included in the study. Mean age of the patients was 49.3 ± 10.8 years. Majority of the patients belonged to the age group 35-50 years (52.38%, n = 165). Females

accounted for most of the cases (57.78%, n = 18) compared to males (42.22%, n = 133). 24.12% (n = 76) of the patients were smokers, 16.19% (n = 51) were alcohol users, and 10.15% (n = 32) had tobacco chewing habit. Most of the patients had the sensation of food sticking as the major presenting complaint (33.96%, n = 107). This was followed in frequency by regurgitation (18.41%, n = 58), odynophagia (9.2%, n = 29), and non-cardiac type of chest pain (8.57%, n = 27). Mean duration of symptoms was 5.6 ± 8.4 months. Benign causes accounted for 57.46% (n = 181) of the cases. Among benign causes, reflux esophagitis (30.93% in the benign group, n = 56), post-radiotherapy strictures (12.7%, n = 23), and post-corrosive strictures (11.6%, n = 21) were the most common causes. Among the malignant causes (n = 115, 36.5%), 86 (74.78%) cases were due to esophageal carcinoma, of which most 34 cases were involving the middle third of the esophagus. 15 (13.04%) patients have esophagogastric junction tumors and 14 (12.17%) patients had esophageal extension of hypopharyngeal carcinoma. In 19 patients (6.03%), no organic cause was found for dysphagia. Foreign Body impaction was the cause of dysphagia in 16 (8.83%) of the patients. 4 (2.2%) patients had post-EVL ulcers and 2 (1.1%) had post-sclerotherapy ulcer as the possible cause of dysphagia. 2 (1.1%) patients were diagnosed with biopsy-proven Eosinophilic Esophagitis. One of the esophageal motility disorders was identified as the cause of dysphagia in 21 (11.6%) of the patients. High Resolution Manometry was done in this subset to characterize the condition. Type II achalasia (38.09%, n = 8) was the most common, followed by Ineffective Esophageal Peristalsis (28.57%, n = 6), Esophagogastric Outlet Obstruction (14.28%, n = 3) and Type III Achalasia cardia (9.52%, n = 2). Majority of the patients complained of weight loss in the study group (54.92%, n = 173), 35.55% (n = 112) were hospitalized for dysphagia at the time of performance of endoscopy, and 2.53% (n = 8) had features of aspiration or aspiration pneumonia.

Age Group	Number of Patients (n)	Percentage (%)
18-34	58	18.41%
35-50	165	52.38%
50+ Years	92	29.2%

Table 1: Age Distribution of the patients.

Gender	Number of Patients (n)	Percentage (%)
Male	133	42.22%
Female	182	57.78%

Table 2: Sex-wise distribution of the patients.

Addictions	Number of Patients (n)	Percentage of total (%)
Alcohol	51	16.19%
Smoking	76	24.12%
Tobacco Chewing	32	10.15%

Table 3: Addictions and Habits.

Primary Symptom at Presentation	Number of Patients (n)	Percentage (%)
Abdominal Pain	21	6.66%
Aspiration or pneumonia	12	3.8%
Non-cardiac Chest Pain	27	8.57%
Painful swallowing (odynophagia)	29	9.2%
Recurrent vomiting	22	6.98%
Regurgitation of food/liquid	58	18.41%
Sensation of Food sticking	107	33.96%
Throat Pain	24	7.61%
UGI Bleed	15	4.76%

Table 4: Distribution of presenting symptoms.

Benign Causes	Number of Patients (n)	Percentage (%)
Eosinophilic Esophagitis	2	1.1 %
Esophageal candidiasis	15	7.73 %
Esophageal Web/Ring	11	6.07 %
Extrinsic Compression	8	4.41 %
Foreign Body Impaction	16	8.83 %
Motility Disorders	21	11.60 %
Pill Esophagitis	2	1.1 %
Post EVL Ulcer	4	2.20 %
Post Radiotherapy Strictures	23	12.70 %
Post Sclerotherapy Strictures	2	1.1 %
Post-corrosive strictures	21	11.6 %
Reflux Esophagitis	56	30.93 %
No organic cause found	19	

Table 5: Frequency of various benign etiologies.

Malignant Causes	Number of Patients (n)	Percentage (%)
Ca hypopharynx extending to esophagus	14	12.17 %
Esophageal Malignancy	86	74.78 %
OG junction tumors	15	13.04 %

Table 6: Frequency of Malignant Etiology.

Complications of Dysphagia	Number of Patients (n)	Percentage (%)
Aspiration pneumonia	8	2.53%
Hospitalization due to dysphagia	112	35.55%
Weight loss	173	54.92%

Table 7: Frequency of associated complications.

Neurological/Myopathic Causes	Inflammatory Causes
Cerebrovascular Accident	Systemic Lupus Erythematosus
Parkinson's Disease	Amyloidosis
Multiple Sclerosis	Sarcoidosis
Brain Neoplasm	Infectious Causes
Alzheimer's Disease	Meningitis
Myositis	Diphtheria
Myasthenia Gravis	Botulism
Muscular Dystrophy	Viral causes
Structural Causes	Iatrogenic Causes
Inflammatory (abscess, tuberculosis, pharyngitis)	Post surgical anatomy
Congenital Webs	Radiation Induced
Neoplasm	Pill Induced
Plummer Vinson Syndrome	Corrosive Ingestion
Cricopharyngeal Bar	Hyperthyroidism
Zenker's Diverticulum	
Extrinsic Compression (lymph nodes, osteophytes, thyromegaly)	

Table 8: Causes of Oropharyngeal Dysphagia.

Neuromuscular Causes
Achalasia cardia
Diffuse Esophageal Spasm
GERD
Systemic Sclerosis
Other motility Disorders
Chagas' Disease
Structural Causes (Intrinsic)
Peptic Stricture
Esophageal Diverticula
Esophageal Rings and Webs
Neoplasm
Foreign Body Impaction
Medication induced Esophagitis
Eosinophilic esophagitis
Infectious Esophagitis
Radiation Esophagitis/Stricture
Lymphocytic Esophagitis
Structural Causes (Extrinsic)
Vascular Compression
Mediastinal Lesions

Table 9: Causes of Esophageal type dysphagia.

Discussion

Dysphagia is defined as a subjective sensation of difficulty or abnormality of swallowing. It is a functional impairment which prevents or limits the intake of food and fluids, and causes swallowing to be inefficient, uncomfortable or affects the quality of life [3]. This is in contrast with globus sensation which is a nonpainful sensation of a lump or tightness in the pharynx or cervical area [4]. Dysphagia is a common symptom in the outpatient setting. In a population-based survey of more than 31,000 adults conducted in the US, 16.1% reported to have experienced dysphagia [5]. Dysphagia causes significant economic and survival burden among patients with drastic reduction in the quality of life [6].

Dysphagia is broadly categorised as oropharyngeal dysphagia and esophageal dysphagia. Oropharyngeal dysphagia is otherwise known as transfer dysphagia [8]. Usual culprits in this type of dysphagia are pathology in the oropharynx like malignancy, oropharyngeal muscle palsies and the faulty nervous supply as in case of cerebrovascular accidents, myasthenia gravis, etc [9]. In esophageal type of dysphagia, also known as transfer dysphagia, the pathology is in the transit route of fluid or food bolus from the cricopharyngeal sphincter to the stomach. Most of the general localisation of the pathology of dysphagia can be diagnosed based on history alone [1,10]. Symptoms of oropharyngeal dysphagia include coughing while swallowing, nasal regurgitation, drooling, piecemeal swallows and aspiration. There may be associated voice change or breathing difficulty if anatomical lesions like tumour are obstructing or infiltrating the vocal cord or trachea. Anatomical anomalies like Zenker's diverticulum, cricopharyngeal web or bar, and cervical esophagus tumours can also present with oropharyngeal dysphagia.

Esophageal Dysphagia presents with dysphagia occurring more than one second after swallowing of food, feeling that the food is stuck somewhere in the retrosternum, recurrent regurgitation of food, etc [11]. When there is gross obstruction to the path of food, mild amounts may be aspirated and can produce aspiration pneumonia. Esophageal tumours can bleed due to repeated trauma due to the transit of food. Motility disorders usually presents with chronic intermittent (diffuse esophageal spasm), or progressive (achalasia) type of dysphagia, with retrosternal pain and nocturnal symptoms. In motility disorders, there is dysphagia to both solid and liquid at onset itself, along with the reduction of symptoms with specific manoeuvres, unlike that of mechanical dysphagia, where there is dysphagia to solids initially which progresses to liquids, and then to absolute dysphagia. There is no relation to postural manoeuvres. Dysphagia to solid food occurs when the lumen of the esophagus is narrowed to less than 13mm. Based on these clinical symptoms, a probable diagnosis can be made and further investigations like endoscopy can be planned. The common causes of oropharyngeal and esophageal dysphagia are listed out in table number 8 and 9.

Incidence of dysphagia increases with age especially after seventh decade [12]. The symptom is often underreported in the elderly population with the caretakers and patients attributing the condition to age related changes, even though significant dysphagia is usually never related to age [13]. Causes of acute dysphagia include food bolus impaction and cerebrovascular accidents. Causes of non-acute dysphagia can further be divided according to dysphagia to solid or liquid or both, and whether the symptoms are intermittent or progressive. Presence of associated symptoms like heartburn, weight loss, anaemia, respiratory involvement and recent change of voice is also important in recognising the complications associated with various types of dysphagia.

The mean age of presentation in our study was 49.3 ± 10.8 years with majority of the patients falling in the age group 35-50 years, which is comparable to other Indian studies. Most of the studies in India were conducted in an urban setting or teaching institute, where a higher prevalence of benign aetiology is noted, which ranged from 35-58% [7,14,15]. In a study conducted at BHU in 2019, which included 220 patients, 65% had a benign etiology and 35% had a malignant etiology, with most malignancies located in the distal esophagus (25.45% of the total study group) [15]. In their study, most common benign cause of dysphagia was esophagitis secondary to reflux which was seen in 25.5% patients which is similar to our study where reflux esophagitis was noted in 17.7% of the patients. In the BHU study, 9.7% had normal endoscopy findings, similar to our observations (6.03%). In a prospective study done at PGIMS, Rohtak, mean duration of symptoms was 7.2 ± 10.6 months, and the major presenting symptom was foreign body sensation noted in 45% of the patients [16]. This contrasts to our study where the mean duration of symptoms is 5.6 ± 8.4 months. The predominant presenting symptom in our study was the sensation of food sticking which was noted in 33.96% of the patients. The most common location of esophageal carcinoma in our study was in the middle esophagus, which contrasts with increasing trend of lower esophageal carcinoma noted in various other recent studies [15,17,18]. This could be due to the addictive habits like smoking and alcohol and the socioeconomic strata of the patients presenting to our center.

In India, the etiology of dysphagia tends to vary depending upon the socioeconomic background of the patients, as studies done in a rural setting have shown malignancy to be the major cause of dysphagia, reaching up to 47%, compared to majority of the studies done in a urban setting or a teaching institute, where benign causes were more predominant (ranging from 38%, to 56.45% in our study) [7,15,19]. A higher proportion of motility disorders, post-corrosive strictures and post-radiation strictures were noted in our study (12.7%, 11.6% and 11.6%) which could be attributed to the referral status of the institute. Concordant to the existing data, high resolution manometry revealed Type II achalasia to be the most common type of esophageal motility in our subset of patients (38.09%). 35.5% of the patients had been admitted for the symptoms of dysphagia, which means a significant reduction in the quality of life pertaining to the disease. This further reiterates the need of early diagnosis and treatment in such individuals.

Conclusion

Esophageal type of dysphagia in any patient merits prompt workup and endoscopy, given the high incidence of malignancy, especially in the setting of chronic substance abuse. In our study, like previously reported studies from India, malignancy accounted for approximately one-third of the cases, while benign causes were still at the fore. A lower incidence of peptic strictures compared to older studies implies the increasing use of PPI in treating peptic ulcer disease and GERD. Demographics of esophageal carcinoma and its symptomatology warrants further studies. Most of the causes of dysphagia are treatable either by medical management or by the use of minimally invasive endoscopic treatment modalities like ESD/EMR in early esophageal neoplasia. Morbidity associated with most of the entities causing this symptom can be offset by an early endoscopy and targeted treatment.

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Conflict of Interest

Authors declare that there is no existing conflict of interest.

Bibliography

1. Spechler SJ. "AGA technical review on treatment of patients with dysphagia caused by benign disorders of the distal esophagus". *Gastroenterology* 117.1 (2019): 233-254.

2. Krishnan G and Goswami SP. "Dysphagia Research in India: A Status Report". *Journal of Indian Speech Language and Hearing Association* 32.2 (2018): 39.

3. Nielsen AH., *et al*. "Defining dysphagia - a modified multi-professional Danish Delphi study". *Scandinavian Journal of Gastroenterology* 58.6 (2023): 583-588.

4. Tawil J and Fass R. "Globus: Current Concepts and Dilemmas". *Journal of Clinical Gastroenterology* 52.10 (2018): 845.

5. Adkins C., *et al*. "Prevalence and Characteristics of Dysphagia Based on a Population-Based Survey". *Clinical Gastroenterology and Hepatology* 18.9 (2020): 1970-1979.e2.

6. Patel DA., *et al*. "Economic and survival burden of dysphagia among inpatients in the United States". *Diseases of the Esophagus* 31.1 (2018): 1-7.

7. Dhande SK., *et al*. "Etiology and endoscopic profile of dysphagia in adults - Single center study at a tertiary care center in South India". *International Journal of Medical Research and Review* 9.6 (2021): 368-373.

8. JB Marshall. "Dysphagia Pathophysiology, causes, and evaluation". *Postgraduate Medicine* 77.5 (1985): 58-63.

9. Shaker R. "Oropharyngeal Dysphagia". *Gastroenterology Hepatology (N Y)* 2.9 (2006): 633-634.

10. Yeom J., *et al*. "Diagnosis and Clinical Course of Unexplained Dysphagia". *Annals of Rehabilitation Medicine* 40.1 (2016): 95-101.

11. Adeyemi Lawal and Reza Shaker. "Esophageal dysphagia". *Physical Medicine and Rehabilitation clinics of North America* 19.4 (2008): 729-745.

12. Ortega O., *et al*. "Diagnosis and Management of Oropharyngeal Dysphagia Among Older Persons, State of the Art". *Journal of the American Medical Directors Association* 18.7 (2017): 576-582.

13. Dodderi T., *et al*. "Prevalence of Self-Reported Swallowing Difficulties and Swallowing-Related Quality of Life Among Community-Dwelling Older Adults in India". *Dysphagia* 39.6 (2024): 1144-1155.

14. Iqbal J., *et al*. "Spectrum of dysphagia Etiologies in North India; A Prospective Study from a Tertiary Health Center". *AIMDR* 4.3 (2018).

15. Mitra T., *et al*. "Clinical profile of patients presenting with dysphagia - an experience from a tertiary care center in North India". *JGH Open* 4.3 (2019): 472-476.

16. Goyal S., *et al*. "Etiological and clinical profiles of patients with dysphagia: A teaching institution experience". *Journal of Family Medicine and Primary Care* 13.5 (2024): 1881-1886.

17. Cherian JV., *et al*. "Carcinoma of the Esophagus in Tamil Nadu (South India): 16-year Trends from a Tertiary Center". *Journal of Gastrointestinal and Liver Diseases* 16.3 (2007): 245-249.

18. Krishnamurthy A and Behuria SS. "Demographic Trends in Carcinoma Esophagus from India along with a Brief Comparative Review of the Global Trends". *South Asian Journal of Cancer* 9.3 (2020): 163-167.

19. Panigrahi S., *et al*. "A Prospective Study Evaluating the Etiologic Spectrum in Patients with Dysphagia in Coastal Odisha Using Clinical Features and Endoscopy". *Journal of Digestive Endoscopy* 10.02 (2019): 107-111.