Original Research Article

# Clinicopathological Study of Dysphagia and its Management in Tertiary Health Centre

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## Abstract

Observational study carried out on 100 patients, presented with complaints of dysphagia, in surgery OPD and allied hospitals and admitted for further management in the ward. Complete detailed history clinical examination with endoscopy was performed. As the dysphagia is assumed to be malignancy unless proven otherwise, hence each and every patient was evaluated and diagnosis were made on the basis of clinical evaluation, endoscopic findings and histopathological findings and management was done accordingly being conservative, palliative, endoscopic and major surgery, open laproscopic and minimal invasive techniques were planned and proceeded. Our study comes up with following results. Among 100 patients 73% were smokers, 23 % were alcoholics and 17% were tobacco chewer. 7, 7&1 % were incidence of upper, middle and lower oesophageal malignancy. Among 100 patients 15% had ca oesophagus, 42% had inflammatory pathology of oesophagitis duodenitis gastritis, 5% patients had baretts oesophagus, ulcerations webs, 11% had dysphagia only without any pathology 4% had no findings in endoscopy, 11% had hiatus hernia lipoma, diverticulum, oesophageal varices and 12% suffering from extraluminal compression from outside. On the basis of diagnosis the treatment underwent was 65% conservative, 7% underwent exploratory laprotomy and abdominal surgery, 14% required esophageal surgery involves Ivor lewis and transhiatal oesophagectomy, 7% treated by endoscopic measures and palliative treatment e malignancy.

Hence, the result strongly suggests the relation of dysphagia and habits of tobacco chewing, alcohol and smoking and early diagnosis of the disease and diagnosis of premalignat lesion and management can prevent the esophageal cancer.

**Keywords:** carcinoma esophagus, Dysphagia, Oesophagectomy, Endoscopy.



## Introduction

The gastrointestinal tract has a myriad of functions, such as digestion, absorption and excretion, as well as the synthesis of an array of hormones, growth factors and cytokines. In addition, a complex enteric nervous system has evolved to control its function and communicate with the central and peripheral nervous systems[1]. Finally, as the gastrointestinal tract contains the largest sources of foreign antigens to which the body is exposed, it houses .well-developed arms of both the innate and acquired immune system. Therefore, it is not surprising that malfunction or infection of this complex organ results in a wide spectrum of pathology. However, its importance in disease pathogenesis is matched only by its inaccessibility to traditional examination. Few discoveries in medicine have contributed more to the practice of gastroenterology than the development of diagnostic and therapeutic endoscopy. Although spectacular advances in radiology have occurred. recently with the introduction of multislice spiral computed tomography (CT) and magnetic resonance imaging (MRI), the ability to take targeted mucosal 'biopsies remains a unique strength of endoscopy[2]. Historically, radiological techniques were required to image areas of jejunum and ileum inaccessible to the standard endoscope; however, the introduction of both capsule endoseopy and single/double-baloon enteroscopy allows both diagnostic and therapeutic access to the entire gastrointestinal tract[2]. Image enhancement with techniques such as chromo endoscopy, magnification endoscopy and narrow band imaging allow increased resolution at the mucosa] level and increase diagnostic yield. Endoscopic ultra sound can examine all layers of the intestinal wall as well as extraintestinal structures. Finally, experimental techniques such as confocal laser endomicroscopy give resolution at a level compatible with standard histology. The advances in the diagnostic accuracy of endoscopy lend themselves to disease surveillance for specific patient groups as well as population screening for gastrointestinal malignancy. Likewise, there has been a rapid expansion in the therapeutic capability of endoscopy with both luminal and extraintestinal surgery being performed via endoscopic access[3].

**Dysphagia**

Is used to describe difficulty with swallowing. When there is a problem with swallowing in the voluntary (oral or pharyngeal) phases, patients will usually say that they cannot swallow properly, but they do not characteristically describe 'food sticking'. Instead, when they try to initiate a conscious swallow, food fails to enter the oesophagus, stays in the mouth or enters the airway causing coughing or spluttering[4]. Virtually all causes of this type .of dysphagia are chronic neurological or muscular diseases. Oesophageal dysphagia occurs in the involuntary phase and is characterised by a sensation of food sticking. The nature of this type of dysphagia is often informative regarding a likely diagnosis. Dysphagia may occur acutely or in a chronic fashion, can affect solids and/or fluids and, be intermittent or progressive. While many patients point to a site of impaction, this is unreliable[5].

Esophageal Cancer is the malignancy of oesophagus .there are various subtypes with primarily squamous cell carcinoma and adenocarcinoma. Squamous cell usually affects the upper two-thirds; adenocarcinoma usually affects the lower-third Common aetiological factors are tobacco and alcohol (squamous cell) 'and GORD

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(adenocarcinoma).The incidence of adenoéarcinoma is increasing Lymph node involvement 'is a bad prognostic factor Dysphagia is the most common presenting symptom, but is a late feature Accurate pretreatment staging is essential in patients thought to be fit to undergo 'curative' treatment[6].

**Aims and Objectives**

The study has been conducted in Department of surgery, R.D. Gardi medical College and C.R. Gardi Hospital and allied hospitals ,Ujjain, India with the following Aims & Objectives.

**Aims**

A prospective study of occurrence of oesophageal malignancies in cases of dysphagia by endoscopic biopsies and findings and clinical correlation.

**Material & Methods**

**Study setting**

This study was carried out at R.D. Gardi Medical College : CR.Gardi Hospital & Allied Hospitals Ujjain , Madhya Pradesh.

**Study duration**

This study was carried out for a period of 1 years and 7 months from Jan 2017 to July 2018.

**Source of data**

The patients presented with signs and symptoms of Dysphagia in Department of surgery .C.R.Gardi Hospitals and Allied Hospitals, Ujjain.

**Inclusion criteria**

- All cases of all age groups and both genders would be included in this syudy, with complaint of dysphagia
- Well Informed Patients willing to comply with the study protocol.

**Exclusion criteria**

1. All cases who have had prior antineoplastic treatment will be excluded.
2. Patients not able to, or not willing to comply with follow up schedule.

**Method of collection 'of data**

A detailed history was taken of all the patients.

Past illness particularly related to corrosive intake, any chronic illness and history of jaundice, was asked for personal history especially for dietary habits and addictions like tobacco chewing, smoking and alcohol were recorded.

A general Examination of patient was carried out to detect any. signs of anaemia a record of pulse ,blod pressure respiration and temperature was kept.

Local examination of abdomen was done and ENT examination carried out Other system of body were examined with a view to detect pulmonary complication and associated systemic disease.

**Investigation-**

1. Upper G.I. Endoscopy was done and biopsy from lesions were taken out.
2. Diagnostic and therapeutic endoscopies done.
3. Serological and non invasive radiological investigations also done.

All the invasive procedures we carried out by the consultant and the server records the data.

On the basis of clinical findings investigations and histopathological report.

The data was recorded n specially designed profarma.

**Sample size**

To calculate the sample size based on the prevalence with an approximate 99% confidence level, we can use the following formula:

$n=z^2p*(100-P)/d^2$

where,

z=1.96 at 95% confidence interval

p=40 % (Prevalance of 49% ref. no. ....17.....)

L=Absolute error = 10%

n=(1.96*1.96) *40* (100-40)/10*10

n=93

Sample size required in my study min. patients of 93.

**Observations & Results**

Our study is prospective study, we did endoscopic examination in dysphagia patients for diagnosis of various esophageal diseases including carcinoma oesophagel discases in C.R.G.H. and U.C.T.H. in R.D.Gardi Medical College In this study all the 100 patients during the period of jan 2017 to july 2018 with symptoms of dysphagia were undergone endoscopic examination.

An attempt was made to study the incidence of various oesophageal disease wit respect to age, sex, personal hispory etc.

Our aim was to study occurrence of dysphagia with primary focus of malignancies and its management.

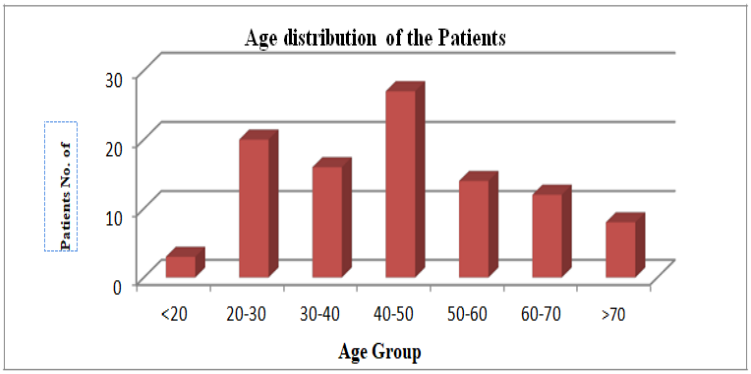
As per our study it was observed under various points stated below-

1. Age wise distribution of patients
2. Sex wise distribution of patients
3. Personal / risk factor wise distribution of the patients
4. Symptom wise distribution of the patients
5. Anatomical site wise distribution of patients
6. Diagnosis wise distribution of patients

Treatment wise distribution of patients.

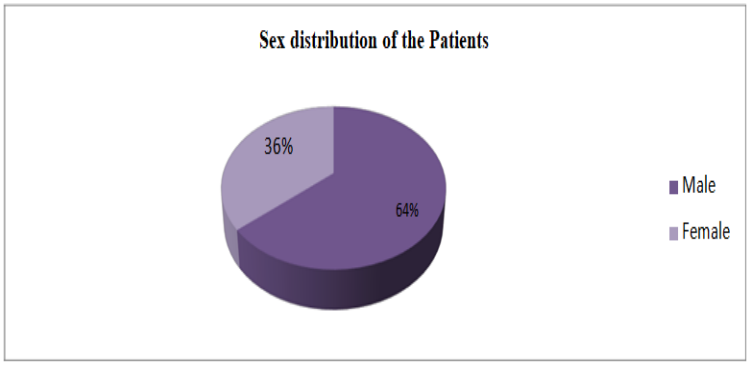
**Age wise distribution of patients.**

In our study, we had 100 patients, majority of whom i.e. 41% belongs to 40-60 years age group and 27% patients belongs to 40-50 years age group.




**Graph 1: Age distribution of the patients**

**Sex wise distribution of patients –** in our study there were 64% male and 36% female with ratioof 1.77.




**Graph 2: Sex distribution of the patients**

3. Personal / risk factor wise distribution of the patients

**Table 1: Distribution of patients According to history of Smoking**

| Smoking Code | Frequency | Percent |
|---|---|---|
| **No** | 27 | 27.0 |
| **Yes** | 73 | 73.0 |
| **Total** | 100 | 100.0 |

**Table 2: Alcohol intake distribution of patients**

| Alcohol | Frequency | Percent |
|---|---|---|
| **No** | **86** | **86.0** |
| **Yes** | **14** | **14.0** |
| **Total** | **100** | **100** |

**Table 3: Tobacco chewing wise distribution of patients**

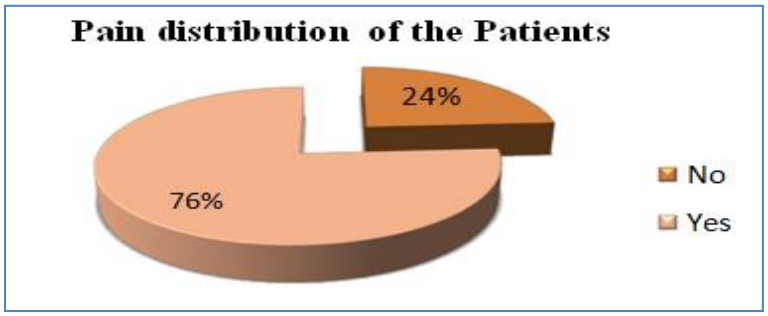
| Tobacco | Frequency | | Percent |
|---|---|---|---|
| No | 88 | | 88.0 |
| Yes | 12 | | 12.0 |
| Total | 100 | | 100.0 |
| d) Diet distribution of Patients | | | |

**Table 4: Diet distribution of the Patients**

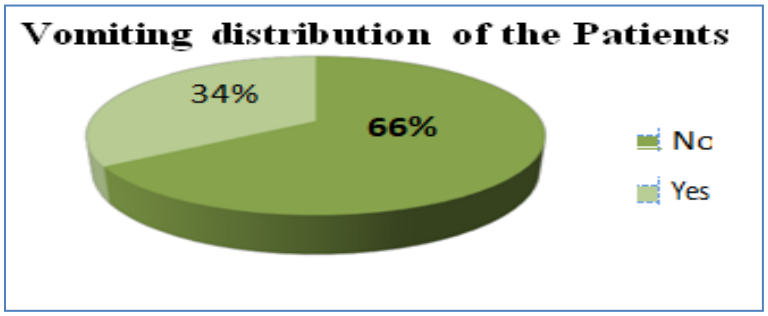
| Diet | Frequency | | Percent |
|---|---|---|---|
| Mixed | 39 | | 39.0 |
| Veg. | 61 | | 61.0 |
| Total | 100 | | 100.0 |

Among 100 patients 73% were smokers, and 14% were alcoholics, 12% patients were involved in tobacco chewing and 39% patients having mixed diet.

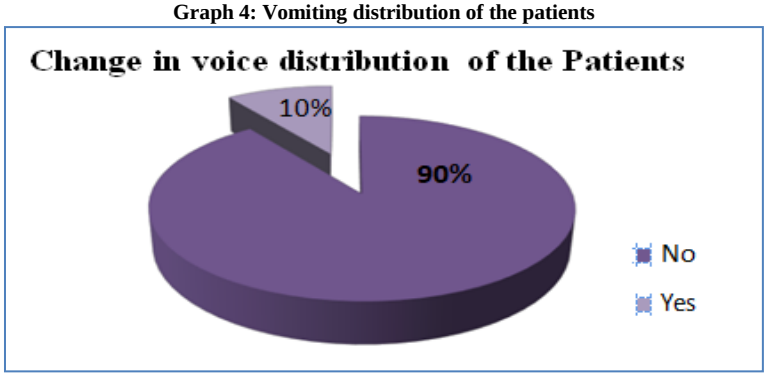
**SYMPTOMS WISE DISTRIBUTION OF PATIENTS**




**Graph 3: Pain wise distribution of patients**




**Graph 4: Vomiting distribution of the patients**




**Graph 4: Change in voice distribution of the patients**

Among patients having dysphagia involved in our study have vomiting, pain during deglutition, and change in voice of 76%, 34% and 10% respectively.

**Table 5: Anatomical site wise distribution of patients a) Upper 1/3 distribution of the Patients**

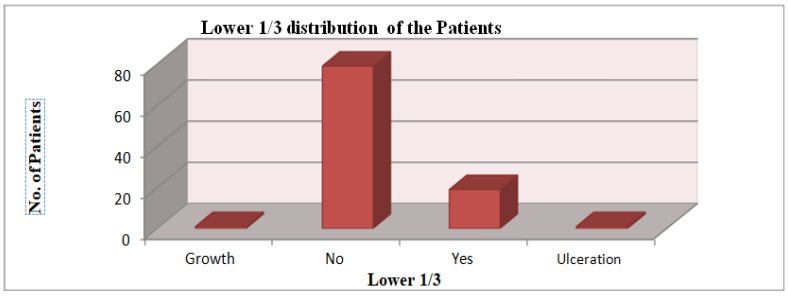
| Upper 1/3 | Frequency | Percent |
|---|---|---|
| **No** | 93 | 93.0 |
| **Yes** | 7 | 7.0 |
| **Total** | 100 | 100.0 |

**Table 6: Middle 1/3 distribution of the Patients**

| Middle 1/3 | Frequency | Percent |
|---|---|---|
| | | |
| No | 93 | 93.0 |
| Yes | 7 | 7.0 |
| | | |
| **Total** | 100 | 100.0 |
| | | |

**Table 7: Lower 1/3 distribution of the Patients**

| Lower 1/3 | Frequency | Percent |
|---|---|---|
| Growth | 1 | 1.0 |
| No | 79 | 79.0 |
| Yes | 19 | 19.0 |
| Ulceration | 1 | 1.0 |
| **Total** | 100 | 100.0 |

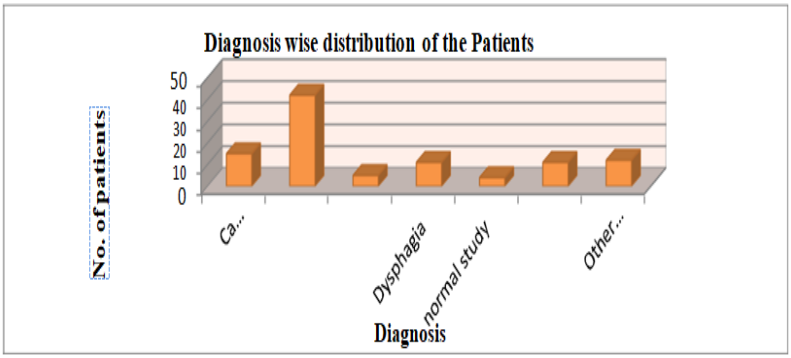



**Graph 5: Lower 1/3 distribution of the patients**

Among the anatomical site findings lesions in upper, middle and lower oesophageal having 7%, 7% and 19% respectively.

**Table 8: Diagnosis wise distribution of the Patients**

| Diagnosis | Frequency | Percent |
|---|---|---|
| Ca Oesophagus | 15 | 15.0 |
| inflammatory lesions | 42 | 42.0 |
| pre malignant | 5 | 5.0 |
| Dysphagia | 11 | 11.0 |
| normal study | 4 | 4.0 |
| other findings | 11 | 11.0 |
| Other malignancy | 12 | 12.0 |
| **Total** | 100 | 100.0 |

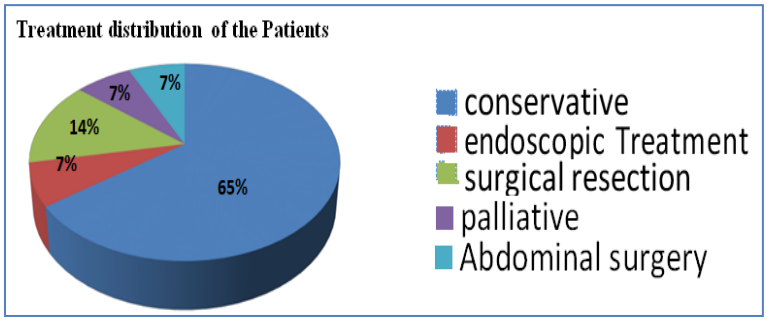



**Graph 5: Diagnosis distribution of the patients**

Among 100 patients 15% had ca oesophagus, 42% had inflammatory pathology of oesophagitis duodenitis gastritis, 5% patients had baretts oesophagitis, ulcerations, webs, 11% had dysphagia only wiyhout any pathology, 4% had no findings in endoscopy, 11% had hiatus hernia, lipoma, diverticulum, oesophageal varices and 12% suffering from extraluminal compreesion from outside malignancy.

**Table 9: Treatment distribution of the Patients.**

| Treatment | Frequency | Percent |
|---|---|---|
| conservative | 65 | 65.0 |
| endoscopic Treatment | 7 | 7.0 |
| surgical resection | 14 | 14.0 |
| palliative | 7 | 7.0 |
| abdominal surgery | 7 | 7.0 |
| **Total** | 100 | 100.0 |




**Graph 5: Treatment distribution of the patients**

On the basis of diagnosis the treatment underwent was 65% conservative, 7% underwent exploratory laprotomy and abdominal surgery, 14% required esophageal surgery involves ivor lewis and transhiatal oesopahgectomy, 7% treated by endoscopic measures and palliative treatment.

**Discussion**

Our study was conducted in CR.Gardi Hospital and associated Hospitals at R D. Gardi medical college Ujjian from jan 2017 to jun 2018 .100 patients were included in the study who presented eith complaints of dysphagia they were subjected to endoscopic examinations as inpatients and OPD basis.

In the study 64% were male and 36% were females with male to female ratio of 1.77. Among all the patients 27 % have malignant pathology including 15% of ca oesophagus and 12 % of other extraluminal malignancies, and 73% of benign pathology.

Among the benign discases majority of cases for dysphagia were reflux oesophagitis Hiatus hernia was diagnosed in 8% of cases and beign strictures in 49% of patients 4% patients underwent

endoscopicesophageal dilatation for dysphagia due to benign strictures .the result of dilatation were excellent and patients haning good swallowing after procedure this is compatible to other studies, where the success rafe is 60%to 80% at 6 months follow[7,8].

In our study the ratio of male (64%) undergoing upper Gl endoscopy were more than the number of females (369%).Similar findings were found in the European study[9].

In all studies the men out numbered women forbcarcinoma esophagus due to prevalance of smoking, alcohol intake and stressful life.lt was observed that patients of our study group shared the same.

In addition to our study it was found that the chewing tobaccos, and inadequate meal habitscontributed to higher ratio in males. The high female incidence in studies as compared to our study may be attributed to the more prevalence of smoking alcoholism and stressful life in the western women as compared to Indian women[10].

The second most common symptom was vomiting invariably these patients had pathology in oesophagus the study done by Zou D et al shows only 28.8% of participants with reflux esophagitis had vomiting and regurgitation symptoms.

In our study the patients undergoing upper Gl endoscopy for dysphagia had other oesophgeal associated complaints such as vomiting, retrosternal pain heartburn[11].

The previous study has individualized the symptoms in patients who underwent endoscopy, hence the ratio of other oesophageal associated Complaints such as vomiting, heart burn is higher in our study[12].

In our study, it was found that tobacco chewing and smoking were the primary Habitual factors for oesophageal symptoms where as alcohol was the primary habitual factor and smoking was the second most common factor in the study by William k .hirota et al[13].

It was found that the tradition of spicy food and chewing tobacco after food was a significant factor in females who were diagnosed to have carcinoma oesophagus with no history of smoking or alcoholism whereas these factors were not considered in western studies as contributing factors[14,15].

**Conclusion**

In this present study 100 cases of dysphagia were examined by upper GI Endoscopy and the results analyzed.

Among 100 patients 15% had ca oesophagus, 42% had inflammatory pathology of oesophagitis duodenitis gastritis, 5% patients had baretts oesophagus, ulcerations webs, 11% had dysphagia only without any pathology 4% had no findings in endoscopy, 11% had hiatus hernia lipoma, diverticulum, oesophageal varices and 12% suffering from extraluminal compression from outside.

On the basis of diagnosis the treatment underwent was 65% conservative, 7% underwent exploratory laprotomy and abdominal surgery, 14% required esophageal surgery involves Ivor lewis and transhiatal oesopahgectomy, 7% treated by endoscopic measures and palliative treatment malignancy.

Hence, the result strongly suggests the relation of dysphagia and habits of tobacco chewing, alcohol and smoking and early diagnosis of the disease and diagnosis of premalignat lesion and management can prevent the esophageal cancer.

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