

Upper and Lower Gastrointestinal Endoscopy Pattern and Record Management in A Rural Medical College in Southern India: An Audit

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Abstract

Gastrointestinal endoscopies are commonly performed procedures following gastrointestinal symptoms. Endoscopy reporting, data entry and data management are standardized in developed countries. Here we audited the endoscopy reports in a handwritten record of rural medical college hospital. High number of missed data entry warrants digitalization of the reporting system, which might improve the standard of care of these patients and future research.

Keywords: Endoscopy; Primary Finding; Record Management.

Introduction

Gastrointestinal symptoms not subsided with medical therapy will lead to the diagnostic invasive procedures like upper and lower gastrointestinal endoscopies.

Endoscopic procedures and the reporting system are standardized in developed countries. In developing countries, standard reporting may not be possible due to poor resources and to reduce the cost. Here we audited an endoscopy record

entry of surgical department in a rural medical college hospital, which caters the rural population primarily [1].

Materials and Methods

A retrospective analysis of the endoscopy records for both upper and lower gastrointestinal scopy available during the period of February 2017 to May 2018 (16 months) in department of general surgery in our institution. Data entry was made from the hand written scopy record for age, sex, clinical diagnosis, endoscopic diagnosis, scope entry level and procedures like biopsy were included. Data analysis was done using excel sheet and when appropriate Fischers exact test was used to compare the variables and the p value <0.05 was considered significant.

Results

Total diagnostic endoscopies done were 456. Oesophagoduodenoscopy (OGD) was 429 (94%) and colonoscopy was 27 (6%). Among the OGD scopy group, males were 263 (61.6%), females 164 (38.4%) and gender entry not available for 2 cases. Among the males < 35 years were 40 and > 35 years were 223. Among the females < 35 years were 34 and > 35 years were 130. Mean age of the patients underwent OGD scopy was 50.7 Years.

Males underwent high number of OGD scopy, while comparing the females and colonoscopy counterparts during the same time. After the age

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of 35 years more number of males underwent OGD scopy compared to females of the same age group. But both this association were not statistically significant [Table 1 & 2].

Table 1: Scopy types and sex of the patients analysis.

	Male	Female	Total
Colonoscopy	14	13	27
OGD Scopy	263	164	427
Total	277	177	454

Fisher's exact test

The two-tailed P value equals 0.3172

The association between rows and columns is considered to be not statistically significant.

Table 2: Age group and sex of the OGD scopy patients analysis.

	Male	Female	Total
< 35 Years	40	34	74
> 35 Years	223	130	353
Total	263	164	427

Fisher's exact test

The two-tailed P value equals 0.1500

The association between rows and columns is considered to be not statistically significant.

Clinical diagnosis before doing OGD was Acid peptic disease (APD) or gastritis in 168, Abdominal pain or Mass abdomen in 68, Dyspepsia or Dysphagia in 62, Liver disease or Cholelithiasis or Cholecystitis or Periampullary growth in 30, Anemia or Hematemesis or Melena in 19, Neck Node or thyroid swelling in 9, Pancreatitis in 4, No clinical diagnosis entry noted in 59 and each one case of Epigastric hernia, Umbilical hernia, Foreign body, Irritable bowel syndrome, Gall bladder polyp, hypothyroid, Tuberculosis abdomen, Appendicitis and Ureteric Colic [Fig. 1].

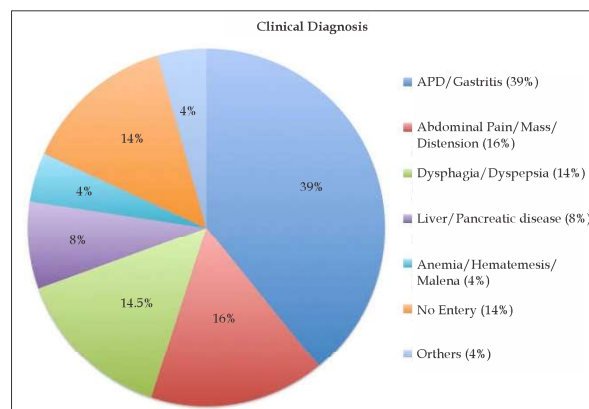


Fig. 1: Clinical diagnosis of the OGD done patients.

Primary OGD scopy finding in relation to stomach were Acute erosive gastritis or Atropic gastritis or Antral gastritis or Biliary reflux gastritis in 138 (32%), Pan-gastritis in 48 (11.2%), Growth or Ulceroproliferative lesion in 54 (12.6%), Ulcer in 12, Hiatus hernia in 4, pyloric stenosis in 3 and distended stomach in 2.

Primary Scopy finding in relation to oesophagus were Lax OG junction with or without esophagitis in 27, Growth esophagus in 9, Barrets esophagus 4, Moniliasis in 2, esophageal varices in 2 and Achalasia cardia in 1.

Duodenal finding primarily noted were Duodenitis in 9, duodenal ulcer in 2 and Worm infestation in 2.

Normal study noted during scopy were 91(21%), scopy abandoned due to uncooperative patient or technical failure in 12 and No entry was made in diagnosis column in 7 [Fig. 2].

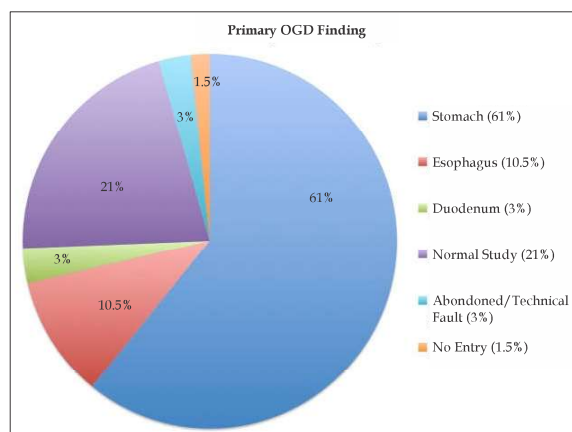


Fig. 2: Primary OGD finding of the patients.

Scopy entered up to duodenum in 58, Not applicable in 12 procedure abandoned cases, Stomach in 11 cases, Afferent and efferent loop of Gastrojejunostomy loop in 1, Upper esophagus in 3 due to postcricoid web or stenosis, OG junction in 1 and No entry available in the register in 343. Biopsy taken during scopy was 44 (10.3%), not applicable as entry in 24, not taken or procedure abandoned in 2, No entry made in 359 and Rapid urease test for H.Pylori positive in 6 cases of biopsy noted.

Among 27 colonoscopy, males were 14 and females 13. Mean age of the patients underwent colonoscopy were 54.7 years. Clinical diagnosis favored colonoscopy were Mass per abdomen or rectum in 9, rectal bleeding or melena in 8, subacute intestinal obstruction or abdominal pain in 7, constipation in 1 and no clinical diagnosis entered in 2.

Primary colonoscopy finding were Normal study in 13 (48%), Growth in 5, polyp in 3, each 1 case of hemorrhoids/Ulcerative colitis/ileal valve thickening, and no entry made in 3.

Colonoscopy entered up to caecum or terminal ileum in 9, transverse colon in 2, Each 1 case of splenic flexure, sigmoid- descending colon junction and anal canal. No entry made for 13 cases.

Bowel preparation noted as fair in 4, poor in 1, not entered in 21 and procedure abandoned in one due to non-cooperative patient. Biopsies taken were 4.

Discussion

OGD scopy done frequently for males compared to the females (1.6:1). Age >35 males were numbered high in OGD scopy compared to the female counterparts (1.7:1). Abdominal pain/distension/mass, Acid peptic disease and Gastritis as clinical diagnosis were the most common clinical (55%) presentations for the OGD scopy. Normal study in 21%. These findings correlated with the study done by Taye et al, who mentioned the sex ratio of 2:1 and normal study 28%. But mean age of their patients was 36, which was 50.7 in our population [2].

Common OGD finding noted organ specific was stomach (61%), next common were normal study (21%) and esophagus (10.5%).

Arjun B et al., from south india reported the normal finding of 14% which is comparable with our 21%. But gastritis reported was 79% in their study but it was 43% in our population. Gastritis was the most common finding in both studies. Duodenitis and oesophagitis reported by them was 33.4% and 37.0%, but the primary findings related to duodenum and esophagus was only 3% and 10.5% [3].

Study done by Khurram M et al, from neighboring country shows high Female (58.2%) patients underwent scopy, which is only 38.4% of females in our study. Mean age of patients was 40.5 years, but it is higher in our study (50.7) [4].

Sumathi B et al. from south india reported confirmed malignancy of 8.3% in their study. We too have got similar percentage of suspected malignant lesions like Growth or Ulceroproliferative lesion in 54 (12.6%). Even though with these suspected malignant lesions biopsy was taken only in 44 (10.3%). Gender ratio underwent scopy also 1.5:1, which is similar with our study. But the mean age of the patients was 41.6 years, which is higher in our study [5].

In OGD scopy record, clinical diagnosis was not available or not entered in 59 (14%) cases, Scopy finding was not entered in 7 (1.6%) cases, Scopy entry level or completeness of the procedure was not mentioned in 343 (80%) cases. Biopsy column also not entered in 359 (84%). In the colonoscopy group also missed entry of clinical diagnosis, Scopy findings, Completeness of the procedure and bowel preparation. These missed entries in records can be minimized by standardizing the endoscopy reporting system by digitalizing and following the view points suggested by European Society of Gastrointestinal Endoscopy (ESGE) [6,7].

Conclusion

Although with high number of missed record entry noted, this rural medical college caters high number of poor people in the need for scopy. But better making the records digitalized, using software will reduce the missed records and retrieval of the data when needed for research purpose or for patients review.

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