Prevalence of upper gastro intestinal endoscopy findings in endoscopy referred patients at Mosul city, a ten years retrospective study

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(AAnn. Coll. Med. Mosul 2010; 36 (1 & 2): 8-11).
Received: 15th Nov 2009; Accepted: 9th Jun 2010.

ABSTRACT

Objectives: To analyze the findings of upper GI endoscopic examination carried out in order to assess the prevalence of upper GI disorders in the examined patients.

Design and setting: A retrospective clinical case series study done over a 10 years period from the 1st of October 1998 to the 1st of October 2008, at the Endoscopy Unit of Al Salam Teaching General Hospital during which a total of three thousand seven hundreds and nineteen upper GI endoscopic examinations were performed and analyzed.

Results: The mean age of our patients was 39.8 years and male to female ratio was 1.29:1 (males 56% and females 44%). Out of the total number of patients (3719), a sum of 1322 (35.5%) patients were typed as normal on endoscopic assessment while 2397 (64.5%) patient were found to retain abnormal findings with the duodenal lesions being the commonest 64%, followed by esophageal one 19%, then gastric lesions 17%. Duodenal ulcer was the most frequently recovered pathology [689 (29%) patients] followed by duodenitis [483 (20%) patients], then by gastroesophageal reflux disease [363 (15%) patients] that is followed by gastritis [312 (13%) patients].

Conclusions: Upper GI lesions are frequent in Mosul population. The upper GI endoscopy is a valuable mean in the assessment of upper GI symptomatology.

Keywords: GI, gastrointestinal.
The endoscopy of upper GI tract is a safe and easily carried out procedure of both high diagnostic and valuable therapeutic benefits with relatively low incidence of morbidity and low cost.

The era of endoscopy made the information about the prevalence of upper GI disorders available in various world countries (1-5).

The number of patients attending the endoscopy unit complaining of broad array of upper GI symptoms is increasing. The upper GI endoscopy that is now performed as the first initial examination instead of contrast studies is carrying a high diagnostic yields in evaluating the explored symptoms (6-8).

The aim of the study
To analyze the findings of upper GI endoscopic examinations within Mosul population.

Patients and methods
During the period between the 1st of October 1998 and the 1st of October 2008, 3719 patients underwent upper GI endoscopic examination and analyzed. Patients were referred from out-patients department, medical wards, surgical wards, and private clinics. The procedure was performed on an overnight fasting patients using lignocaine spray or jelly. Diazepam was rarely used in excited patients in a dose of 5-10 mg. Olympus (GIF endoscope, Japan) was used to proceed through the distal second part of duodenum then stomach, with careful assessment of mucosa of upper GI tract was achieved. Biopsies were taken from suspected malignant lesions; antral biopsies for helicobacter pylori detection were performed, also biopsies taken from 2nd part of duodenum for suspected malabsorption. The over all examination was done by one endoscopist, and diagnosis of different pathologies was done according to the American society of gastroenterology criteria. Examination notes were documented and archived properly.

Numbers and percentages plus means were calculated using SPSS software.

Results
Out of the total number of patients (3719), a sum of 1322 (35%) patients were typed as normal on endoscopic assessment while 2397 (65%) patient were found to retain abnormal findings.

The mean age of our patients was 39.8 years and male to female ratio was 1.29:1 (males 56% and females 44%). The duodenal lesions were the commonest 64%, followed by esophageal one 19%, then gastric lesions 17% table (1). Duodenal ulcer was the most frequently recovered pathology [689(29%) patients] with a male predominance (M:F= 2.1:1), followed by duodenitis [483(20%) patients] that also showed male predominance (M:F= 1.4:1) table (2), then by gastroesophageal reflux disease [363 (15%) patients] predominantly among males (M:F= 1.6:1) table (3), followed by gastritis [312 (13%) patients] that was more predominant among females (F:M= 1.05:1) table (4).

Table (1): Showing the prevalence of regional endoscopic findings, with percentages calculated within the total No. of patients.

| Type of endoscopy | No.  | %   |
|-------------------|------|-----|
| Normal results    | 1322 | 35.5|
| Abnormal results: |      |     |
| 1. Duodenum       | 1527 | 41.05|
| 2. Esophagus       | 464  | 12.47|
| 3. Stomach        | 406  | 10.91|
| Total No.         | 3719 | 100 |
Table (2): Demonstrates the duodenal array of disorders found on endoscopy.

| Disease                  | No. | % Male | Female | Mean age |
|--------------------------|-----|--------|--------|----------|
| Duodenal ulcer           | 689 | 45.1   | 67.9   | 32.1     | 37       |
| Duodenitis               | 483 | 31.6   | 59.6   | 40.4     | 34       |
| Celiac disease           | 35  | 2.3    | 37.1   | 62.9     | 12       |
| Bleeding duodenal ulcer  | 50  | 3.3    | 76     | 24       | 41       |
| Operated duodenal ulcer  | 34  | 2.2    | 73.5   | 26.5     | 45       |
| Deformity                | 79  | 5.2    | 64.6   | 35.4     | 38       |
| Pyloric obstruction      | 37  | 2.4    | 75.7   | 24.3     | 45       |
| Multiple duodenal ulcers | 53  | 3.4    | 62.3   | 37.7     | 36       |
| Healed duodenal ulcer    | 67  | 4.3    | 65.7   | 34.3     | 34       |
| Total No.                | 1527| 64     |        |          |

Table (3): Shows the esophageal disorders found on endoscopy.

| Disease                        | No. | % Male | Female | Mean age |
|--------------------------------|-----|--------|--------|----------|
| Gastroesophageal reflux disease| 363 | 78     | 61.7   | 38.3     | 41       |
| Varix                          | 37  | 8      | 75.6   | 24.4     | 44       |
| Foreign body                   | 2   | 0.4    | 100    | -------- | 40       |
| Inflammation                   | 29  | 6.2    | 68     | 32       | 39       |
| Tumors                         | 11  | 2.4    | 54.5   | 45.5     | 57       |
| Hiatus hernia                  | 18  | 4.4    | 61     | 39       | 51       |
| Mallory Weiss tear             | 4   | 0.6    | 61     | 39       | 51       |
| Total No.                      | 464 | 19     |        |          |

Table (4): Demonstrates the gastric lesions found on endoscopic examination.

| Disease                        | No. | % Male | Female | Mean age |
|--------------------------------|-----|--------|--------|----------|
| Gastritis                      | 312 | 76.8   | 48.7   | 51.3     | 37       |
| Tumors                         | 72  | 17.7   | 54.2   | 45.8     | 57       |
| Gastric ulcer                  | 4   | 1      | 75     | 25       | 58       |
| Active Bleeding                | 10  | 2.5    | 70     | 30       | 48       |
| Previous Operation             | 5   | 1.2    | 20     | 80       | 53       |
| Osler weber rendu              | 2   | 0.5    | ------ | 100      | 25       |
| Trichobezoar                   | 1   | 0.2    | ------ | 100      | 25       |
| Total No.                      | 406 | 17     |        |          |

Discussion
This study demonstrated that 2397 (65%) of the examined patients had visible endoscopic findings, the most common lesions observed were duodenal (64%) followed by esophageal and gastric, (19%) and (17%) respectively. The commonest lesion was duodenal ulcer (29%). This is higher than that found by Sarkis at Basrah (22.8%) (9), Sudan (17%) (4), and Saudia Arabia (14%) (10).

The duodenal ulcer was found to be predominant in males (M:F= 2.1:1) as compared to Sarkis study at Basrah (9) (M:F= 3:1) and a study from Sudan (M:F= 4.5:1)(4).

Benign gastric ulcer was uncommon finding (0.16%) when compared to duodenal ulcer (29%), this was documented also by Sarkis (9) and other studies held at southern Iraq (5), Kuwait (11) and Sudan (4).

Conclusions
It is concluded that upper GI disorders are prevalent in Mosul population with duodenal ulcer being the commonest pathology followed by duodenitis then by gastroesophageal reflux disease and gastritis respectively.

The upper gastrointestinal endoscopy has a high diagnostic value in investigating upper GI symptoms.

Recommendations
Since that the upper GI endoscopy is not costly and easily performed, hence we recommend it as the procedure of choice in investigating the upper GI symptomatology.
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