

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

Makkie A.K. AL-Youzbaki

Endoscopy Unit, Department of Medicine, Al-Salam Teaching Hospital, Mosul.

(Ann. Coll. Med. Mosul 2010; 36 (1 & 2): 8-11).

Received: 15<sup>th</sup> Nov 2009; Accepted: 9<sup>th</sup> 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 1<sup>st</sup> of October 1998 to the 1<sup>st</sup> 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.

### الخلاصة

**الأهداف:** لتحليل نتائج تنظير الجهاز الهضمي العلوي الذي تم إجراؤه في شعبة التنظير لتقييم أنواع انتشار أمراض الجهاز الهضمي العلوي للمرضى المحالين.

**التصميم والاعداد:** تم إجراء دراسة لسلسلة من الحالات السريرية الاسترجاعية والتي امتدت لفترة عشر سنوات ابتداء من شهر تشرين أول ١٩٩٨ ولغاية الأول من شهر تشرين أول ٢٠٠٨ في شعبة التنظير التابعة لمستشفى السلام التعليمي العام حيث تم خلال هذه الفترة فحص وتحليل ثلاثة آلاف وسبعمائة وتسعة عشر حالة.

**النتائج:** كان متوسط عمر المرضى ٣٩,٨ سنة وبلغت نسبة الذكور الى الإناث ١,٢٩:١ (الذكور ٥٦% والإناث ٤٤%) من المجموع الكلي لعدد المرضى البالغ (٣٧١٩)، وتم تصنيف ما مجموعه منها ١٣٢٢ (٣٥,٥%) كانت طبيعية أثناء الفحص، في حين وجد بان باقي المرضى البالغ عددهم ٢٣٩٧ (٦٤,٥%) كانت حالات مرضية كما يلي، أمراض الألتني عشري كانت الأكثر شيوعا (٦٤%) تليها أمراض المريء وكانت نسبتها (١٩%) وأخيرا أمراض المعدة وبلغت نسبتها (١٧%). قرحة الألتني عشري كانت هي الأكثر انتشارا حيث كان عدد المرضى المصابين بها [٦٨٩ (٢٩%)] يليها التهاب الألتني عشري [٤٨٣ (٢٠%)] ويليهما المرضى المصابين برخاوة الفتحة الفؤادية [٣٦٣ (١٥%)] ويليهما أخيرا أمراض التهاب المعدة حيث بلغ عددهم [٣١٢ (١٣%)].

**الاستنتاجات:** تعتبر أمراض الجهاز الهضمي العلوي شائعة ومنتشرة بين المرضى في مدينة الموصل. ويعتبر فحص تنظير الجهاز الهضمي العلوي أحد أهم الوسائل في تقييم مرضى الجهاز الهضمي العلوي.

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 <sup>(1-5)</sup>.

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 <sup>(6-8)</sup>.

#### 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 1<sup>st</sup> of October 1998 and the 1<sup>st</sup> 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 2<sup>nd</sup> 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:	2397	64.5
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	50	50	25
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%)<sup>(9)</sup>, Sudan (17%)<sup>(4)</sup>, and Saudia Arabia (14%)<sup>(10)</sup>.

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

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

## 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.

**References**

1. Fedail S, Araba B, Homeida M, et al. Upper gastrointestinal fiberoptic endoscopy experience in Sudan. *Lancet* 1993; 2:897-899.
2. Al Moagel M, Al Faraji M, Al Mofarreh. Endoscopy of the gastrointestinal tract in Riyadh central hospital. Proceeding of the seventh Saudi medicine meeting King Faisal University, Dammam, 2-6 August 1982.
3. Laajam M, Al Mofleh I, Al Faleh Fz. et al. Upper gastrointestinal fiberoptic endoscopy in Saudi Arabia, analysis of 6386 procedures. *Quarterly Journal of Medicine, New Series* 1980; 66:21-25.
4. Shoboksh O, Al Sakffizy, Zahrani JY. Prevalence of endoscopic findings, *Saudi Medical Journal* 1994;15: 372-388.
5. Al Hilly h, Alsikafy H, Bakes S, et al. Endoscopy in the diagnosis of dyspeptic patients in Basrah region. *Medical Journal of Basrah University* 1990; 9:93-99.
6. Tedesco FJ. Endoscopy in the evaluation of upper gastrointestinal symptoms: indications, expectations and interpretation. *J. Clin. Gastroenterol.* 1981; 3(2): 67-71.
7. Health and public committee, American College of Physicians, Philadelphia, Pennsylvania, clinical competence in diagnostic OGD. *Annals of Internal Medicine* 1987; 937-39.
8. The working party of the clinical services committee of the British Society of Gastroenterology. Provision of GI endoscopy and relevant services for district general hospital. *GUT*.1991; 32:95-100.
9. Sarkis K. Upper gastro intestinal endoscopy findings in patients with dyspeptic symptoms in Basrah. *Iraqi Journal of Gastro Enterology* 2002; 3(1): 45-48.
10. Al karawi M, Ali A, Mohamed A, et al. Upper gastro intestinal endoscopy findings at Riyadh armed forces hospital. *Saudi Medical Journal* 1999; 20(8): 598-601.
11. Al Nakib B, Al Liddawin. Upper gastro intestinal endoscopy experience in Kuwait: analysis of 1019 cases. *Gastroenterologic endoscopy*. 1981; 23:605-08.