

Endoscopic Findings in Uraemic Patients

With Dyspeptic Symptoms

Dr:Dheyaa Ali Ahmed; MBChB; MD.
Physician-Endoscopist

المشاهدات التنظيرية عند المرضى المصابين بعجز الكليتين المزمن ولديهم عسر هضم

اعداد: الدكتور ضياء علي أحمد المشهداني
أختصاص باطنية- المركز التخصصي لأمراض الجهاز الهضمي والكبد في النجف

الملخص

الهدف من الدراسة:

- 1- لأيجاد علاقة بين المشاهدات التنظيرية وبين التشخيص السريري للمرضى المصابين بعجز الكليتين المزمن والذين يعانون من عسر الهضم.
 - 2- لأيجاد نسبة الأصابات المختلفة في بطانة الجهاز الهضمي العلوي من خلال الفحص التنظيري للمرضى المصابين بعجز الكليتين المزمن ولديهم عسر هضم مقارنة مع المشاهدات التنظيرية للمرضى الغير مصابين بعجز الكليتين ولديهم ايضا عسر هضم.
- المواد والطرق المستخدمة:

دراسة مستقبلية اجريت ما بين شهر آذار ٢٠٠٧ ولغاية شهر أيلول ٢٠٠٧، على المرضى الراقدين في مستشفى الصدر التعليمي ومستشفى الحكيم العام في محافظة النجف حيث تم اختيار ٢٥ مريض مصاب بعجز الكليتين مع عسر الهضم (١٩ منهم كانوا على الغسل البريتوني و٦ منهم على العلاج التحفظي) حيث تم اجراء الفحص السريري لهم واجراء قياس نسبة اليوريا في الدم وقد تم تصنيف هؤلاء المرضى الى أربعة مجاميع حسب هذه النسبة قبل اجراء الفحص التنظيري لهم. كما تم تحليل النتائج التنظيرية للمرضى الغير مصابين بعجز الكليتين والذين لديهم عسر هضم وقد كان عددهم ١٠٠٠ مريض خلال الفترة من آذار ولغاية أيلول ٢٠٠٧ وقد تم اجراء المقارنة بين المجموعتين.

النتائج

كانت نتائج الفحص السريري للمرضى المصابين بعجز الكليتين كالاتي ٤ منهم احتمالية وجود التهاب المريء ٩ منهم احتمالية وجود التهاب المعدة و١٢ منهم احتمالية وجود تقرحات في بطانة الجهاز الهضمي العلوي، بينما كانت نتائج الفحص التنظيري لهم كالاتي ١٥ منهم مصاب بالالتهاب الاثني عشر، ١٢ منهم مصاب بالتهاب المعدة، ٧ منهم مصاب بالتهاب المريء، ٣ منهم مصاب بالفق، ٣ منهم طبيعي.

اما نتائج الفحص التنظيري لألف من المرضى غير المصابين بعجز الكليتين فهي كالاتي ١١٥ مريض مصاب بالتهاب المريء ١١٣ و مريض مصاب بالتهاب المعدة و٣٥ مريض مصاب بقرحة المعدة و١٩٠ مريض مصاب بالتهاب الاثني عشر و٣١٣ مريض مصاب بقرحة الاثني عشر و٢٧٧ مريض الفحص التنظيري لهم طبيعي.

خاتمة

هذه الدراسة توضح عدم وجود التقرحات في بطانة الجهاز الهضمي العلوي عند المرضى المشمولين بهذه الدراسة وهم من المصابين بعجز الكليتين المزمن، بينما كانت هناك زيادة في نسبة الاصابة بالتهاب المريء والمعدة والاثني عشر مع مقارنتهم بالمرضى غير المصابين بعجز الكليتين ولديهم عسر هضم.

Abstract

Objective:

1-To correlate the endoscopic findings with clinical diagnosis of patients with chronic renal failure in regard to the cause of their dyspeptic symptoms.

2-to find out the frequency of various mucosal lesions of upper gastrointestinal tract in these patients as shown by endoscopic examination in comparison to the findings in non renal failure dyspeptic patients.

Patients and methods: A prospective study carried out between March 2007 to September 2007 on the admitted 25 uraemic patients with dyspeptic symptoms in AL-Sader teaching hospital and AL-Hakeem general hospital in AL-NAJAF city in IRAQ. (19 peritoneal dialysis and 6 patients on conservative treatment). History and clinical examination had done for each patient and clinical diagnosis of the dyspeptic symptoms was made before the endoscopic examination. Blood urea was measured in all patients and the patients are classified arbitrarily into four groups according to the level of the blood urea before endoscopic examination. Also the endoscopic results of 1000 dyspeptic non uraemic patients examined during the same period were also analyzed and compared with those of uraemic patients.

Results:

Clinical diagnosis depending on history and clinical examination was as follows. 4 patients highly suggestive of esophagitis, 9 patients highly suggestive of gastritis, 12 patients highly suggestive of peptic ulceration. While the endoscopic results of the dyspeptic uraemic patients were 15 patients got duodenitis, 12 patients got gastritis, 7 patients got esophagitis, 3 patients got esophageal hiatus hernia, 3 patients with normal finding. Regarding the endoscopic findings of 1000 cases of non uraemic patients with dyspeptic symptoms were esophagitis in 115 of the cases, gastritis in 113 of the cases, gastric ulcer in 35 of the cases, duodenitis in 190 of the cases, duodenal ulcer in 313 of the cases, other normal findings and others in 277 of the cases.

Conclusion:

This study is clearly shown no peptic ulcer was detected in uraemic patients involved in our study, while there is increase in the frequency of mucosal lesions in the form of esophagitis, gastritis, and duodenitis in comparison with non uraemic patients with dyspeptic symptoms.

Keyword : uraemic, dyspepsia, endoscopy

Introduction

Gastrointestinal symptoms are common and early manifestation in uraemic patients, there are many theories about the causative mechanism of these symptoms:

They may be due to protein calorie malnutrition (1,2,15) or due to elevation of serum gastrin concentration (3) and high acid output in uraemic patients, some authors (11,12,13) relate these symptoms to the presence of urea which got access as a consequence of diffusion from blood of uraemic patients producing direct injury to the surface cells stomach.

peptic ulcer in uraemic patients:

chronic renal failure is said to be a risk factor for peptic ulceration (1), however there are contradictory results from various studies in regard to this statement.

Wiener et al and others 7,8 (1969) evaluated 45 uraemic patients on regular hemodialysis with upper gastrointestinal symptoms, they found 21 of them with prominent enlargement of duodenal folds seen by radiological examination which were very difficult to distinguish them from acute bulbar deformity, also CCDoherty et al (9) and others (1978), they found the ulcer disease is unusually frequent and the highest

incidence was in patients on regular hemodialysis(48%)while those on conservative treatment the incidence was(47%).on the contrary ,other study done by David M.Margolis etal(10)on uraemic patients on maintenance hemodialysis indicates that the prevalence of chronic peptic ulcer in uraemic patients may have been over emphasized,because no ulcers were identified during the time of their study.

The aim of our study:

- 1-To correlate the endoscopic findings with the clinical diagnosis of patients with chronic renal failure in regard to the cause of their dyspeptic symptoms.
- 2-To find out the frequency of various mucosal lesions of upper gastrointestinal tract in these patients as shown by endoscopic examination in comparism to the findings in non renal failure patients.

Patients and methods:

60 uraemic patients with dyspeptic symptoms were admitted to AL-Sader teaching hospital and AL-Hakeem general hospital in AL- NAJAF city in IRAQ from march 2007 to september 2007. only 25 of them were good candidate for endoscopic examination (19 patients on peritoneal dialysis and on conservative treatment) . Other patients were not included either because they are critically ill or they refused examination.

History and clinical examination had done for each patient and clinical diagnosis of the dyspeptic symptoms was made before the endoscopic examination. blood urea was measured in all patients before doing initial treatment and endoscopic examination ,and the patients are classified arbitrary according to the blood urea level in to four groups:

Group 1=blood urea (100-149 mg/100ml)

Group 2=blood urea(150-199 mg/100ml)

Group 3=blood urea (200-250 mg/100ml)

Group 4=blood urea (more than 250 mg/100ml)

Definition

Dyspepsia:is defined as the symptoms of one or more of the following (nausea, vomiting, flatulance, epigastric pain, hyperacidity, etc...).

Chronic renal failure: patients presented with high blood urea many months duration,with existence of irreversibility advaced and usually progressive renal insufficiency.

The endoscopic results of 1000 dyspeptic non uraemic patients examined during this period (march-september 2007) were also analyzed and compared with those of uraemic patients.

Results:

The age of uraemic patients involved in our study was in the range of 17-60 years with amean of 35 years, there were 14 women and 11 men

The frequency of dyspeptic symptoms is shown in the table 1.

Clinical diagnosis was made depending on the history and clinical examination and the results as follows:

4 of the patients ,the history was highly suggestive of esophagitis.

9 of the patients , the history was highly suggestive of gastritis.

12 of the patients ,the history was highly suggestive of peptic ulceration.

On endoscopic examination of the uraemic patients the results were as shown in table 3.

15 patients (60%) got dudenitis 5(20%) erosive,10(40%)were non erosive.

12 patients (48%) got gastritis 5(20%)erosive, 7(28%)were non erosive.
 7 patients (28%) got esophagitis.
 4(16%)with candidiasis,3(12%)without candidiasis.
 3 patients got hiatus hernia (12%).
 3 patients (12%) with normal endoscopic finding.
 No peptic ulceration was identified in any uraemic patients involved in our study.
 The endoscopic findings of 1000 cases of non uraemic patients with dyspeptic symptoms were as follows:
 Esophagitis in 115 of the cases(11.5%),15 of them(1.5%)with candidiasis.
 Gastritis in 113 of the cases(11.3%),8% were non erosive and 3.3% were erosive.
 Gastric ulcer in 35 of the cases (3.5%).
 Dudenitis in 190 of the cases (19%),16% were non erosive and 3% were erosive.
 Duodenal ulcer in 313 of the cases (31.3%).
 Other normal findings and others in 277 of the cases (27.7%).

Table 1: The frequency of dyspeptic symptoms.

Dyspeptic symptoms	No.of cases	percentage
Nausea and vomiting	22	88%
Hyperacidity	22	88%
Epigastric pain	19	76%
Periodic	13	52%
Non periodic	6	24%
Dysphagia and	3	12%
Regurgitation	4	16%
melena		

Lesion	Clinical diagnosis	Endoscopic diagnosis
Esophagitis	4	7
Gastritis	9	12
Dudenitis	0	15
Peptic ulcer	12	0
Normal	-	3

Table 2: The relation between the clinical diagnosis and the endoscopic findings in uraemic patients with dyspeptic symptoms.

(Table 3): the frequency of endoscopic findings in non uraemic patients with dyspeptic symptoms in comparism with uraemic dyspeptic patients.

Endoscopic finding		Non uraemic patients		Uraemic patients	
esophagitis	Without candidiasis	10% (100)	11.5%	12%(3)	28%(7)
	With candidiasis	1.5%(15)		16%(4)	
Gastritis	Non erosive	8%(80)	11.3%(113)	28%(7)	48%(12)
	Erosive	3.3%(33)		20%(5)	
Dudenitis	Non erosive	16%(160)	19%(190)	40%(10)	60%(5)
	Erosive	3%(30)		20%(5)	
Gastric ulcer		3.5%(35)		0%(0)	
Duodenal ulcer		31.3%(313)		0%(0)	
Normal finding and others		27.7%(277)		12%(3)	

(Table 4): The relation of blood urea level of uraemic patients with their endoscopic findings.

(*):Blood urea in mg/100ml

Endoscopic findings		100-149 (*)		150-199		200-250		More than 250	
esophagitis		1		0		3		3	
gastritis	Non erosive	0	0	2	2	2	3	3	7
	erosive	0		0		1		4	
dudenitis	Non erosive	2	2	2	2	3	5	3	6
	erosive	0		0		2		3	
Peptic ulcer		0		0		0		0	
Total		3		4		11		16	
Normal findings		3		0		0		0	

Discussion :

The reports of the prevalence of peptic ulcer in dyspeptic uraemic patients are contradictory. David et al (10,14), in a study of 60 uraemic patients on maintenance hemodialysis found the incidence of peptic ulcer in these patients were 0% while there was striking prevalence of esophagitis, gastritis, and particularly, of duodenitis. J.Y.KANG et al (11), found the incidence of peptic ulcer in 114 uraemic patients on maintenance hemodialysis was (2%). Andriulli et al (12), found similar results. On the contrary to the above findings other studies had shown high prevalence of peptic ulceration in patients with chronic renal failure. CCDoherty et al (9), found peptic ulcer in 48% of patients and, A.M.N Shepherd et al (13) 1937, found a prevalence of 53%.

Our results : of 25 patients with chronic renal failure showed no cases of peptic ulcer, which suggest low prevalence of peptic ulcer when compared with one thousand non uraemic dyspeptic patients as shown in table (3). However there is high prevalence of superficial mucosal lesions (22/25) in the form of esophagitis, gastritis, and especially of duodenitis (table 3). In regard to the accuracy of clinical diagnosis of peptic ulcer was found there is poor correlation between clinical and endoscopic findings as shown in (table 2).

We also found good correlation between level of blood urea and the frequency and severity of the mucosal lesion as shown in (table 4).

Conclusion

This study is clearly shown no peptic ulcer was detected in uraemic patients involved in our study, while there is increase in the frequency of mucosal lesions in the form of esophagitis, gastritis, and duodenitis in comparison with non uraemic patients with dyspeptic symptoms. To get more informative results our study has to be expanded in the future to involve high number of uraemic patients.

Thank you

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