

Assessment of peptic ulcer among people in Basra, Iraq and it's relation to drugs therapy (cross sectional study)

إعداد

أديان احمد كاظم

مها صبار حاتم

بإشراف

أ.م.د. أسامة ايوب يعقوب

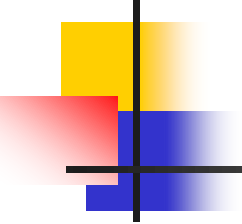
م.د. شيماء نادم



Introduction

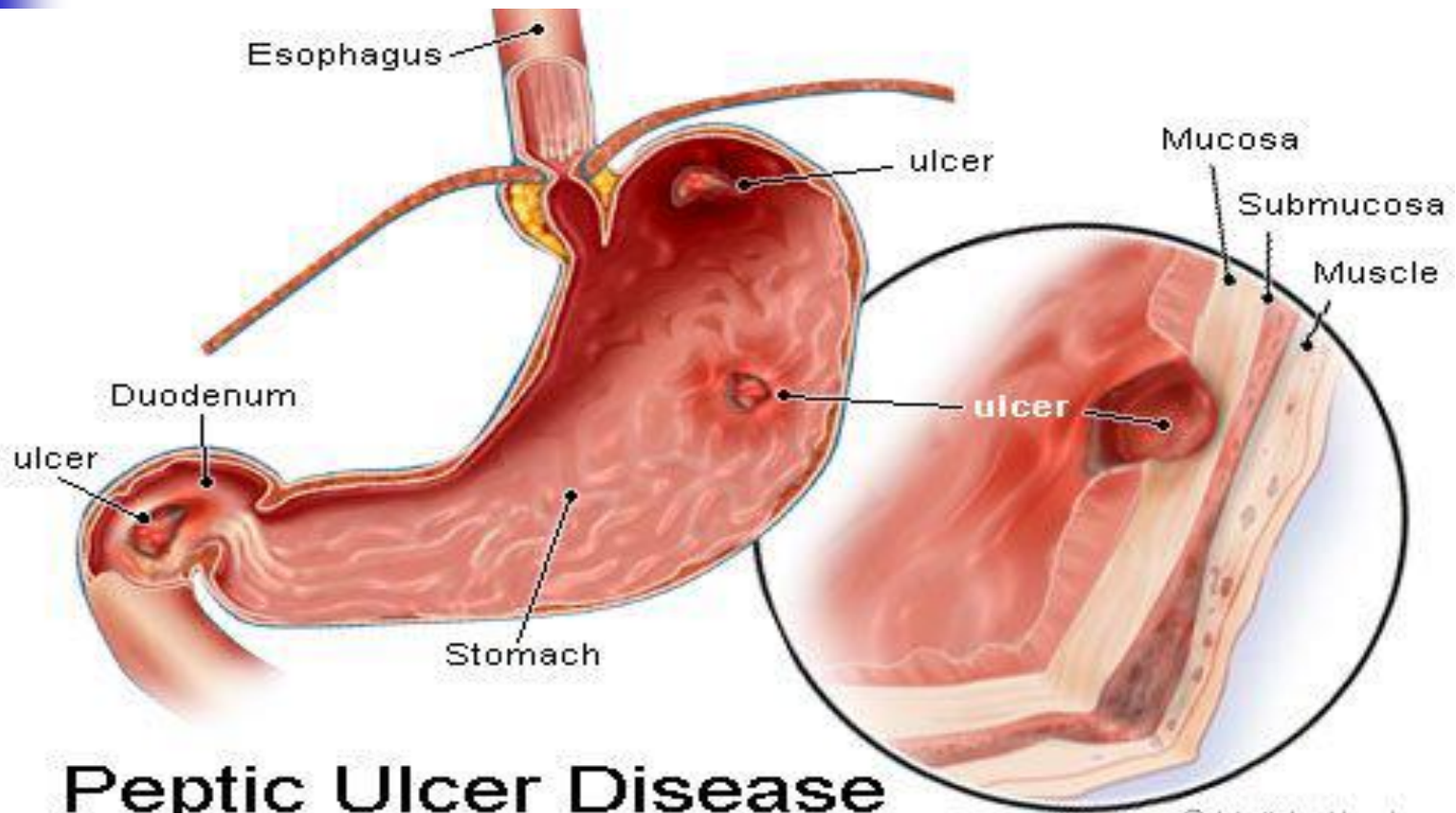
peptic ulcer disease (PUD) is a common condition with a worldwide prevalence of approximately 1.5%. Upper gastro intestinal endoscopy findings in patients with dyspeptic symptoms in Basra with duodenal ulcer was found in 22.8% and gastric ulcer in 0.8%.

PUD is an erosion in a segment of the gastrointestinal mucosa typically in the stomach(gastric ulcer) or the first few centimeters of the duodenum(duodenal ulcer) that penetrates through the muscularis mucosa.



Peptic ulceration occurs as a consequence of an imbalance between protective and destructive influences acting on the gastroduodenal mucosa. As shown in figure(1).

Figure 1: peptic ulcer disease



Peptic Ulcer Disease



Clinical manifestations

Abdominal pain, classically epigastric strongly correlated to mealtimes, bloating, abdominal fullness, water brash nausea and vomiting. As shown in table (1).

Table 1: Differences between gastric and duodenal ulcer.

Property	Gastric ulcer	Duodenal ulcer
Pain: Localisation	Epigastric	Epigastric or Umbilical
Spreading	Substernal	Back
Nature	Sharp, stabbing	Dull
Frequency	Every day Pain more severe	Periodic, sometimes Persistent
Response to ingestion of food	Seldom	Pain improves
Night time pain	Relieves pain	Often
Family history	Occasionally	Often



Causes of PUD

H. Pylori infection and NSAID use are generally considered as major pathogens in gastro-duodenal mucosa. Other less common causes include alcohol, smoking, cocaine, severe illness, autoimmune problems, radiation therapy and Crohn disease among others.

- **H.infection**

The presence of H.pylori in the stomach requires penetration of bacteria through 'unstirred' layer of mucus/HCO₃⁻ covering the surface epithelium to reach their surface and to adhere directly to it.

- **COPD**

COPD is associated with many other smoking-related chronic diseases and their treatments including glucocorticoids which also have been associated with elevated mortality rates following complicated peptic ulcer disease.



- **Smoking and alcohol**

Alcohol consumption and cigarette smoking are risk factors for PUD. Others have been more specific in exploring the risks involved and have found that smoking by itself may not be much of a risk factor unless associated with H.pylori infection.

- **Past gastric ulcer and family history**

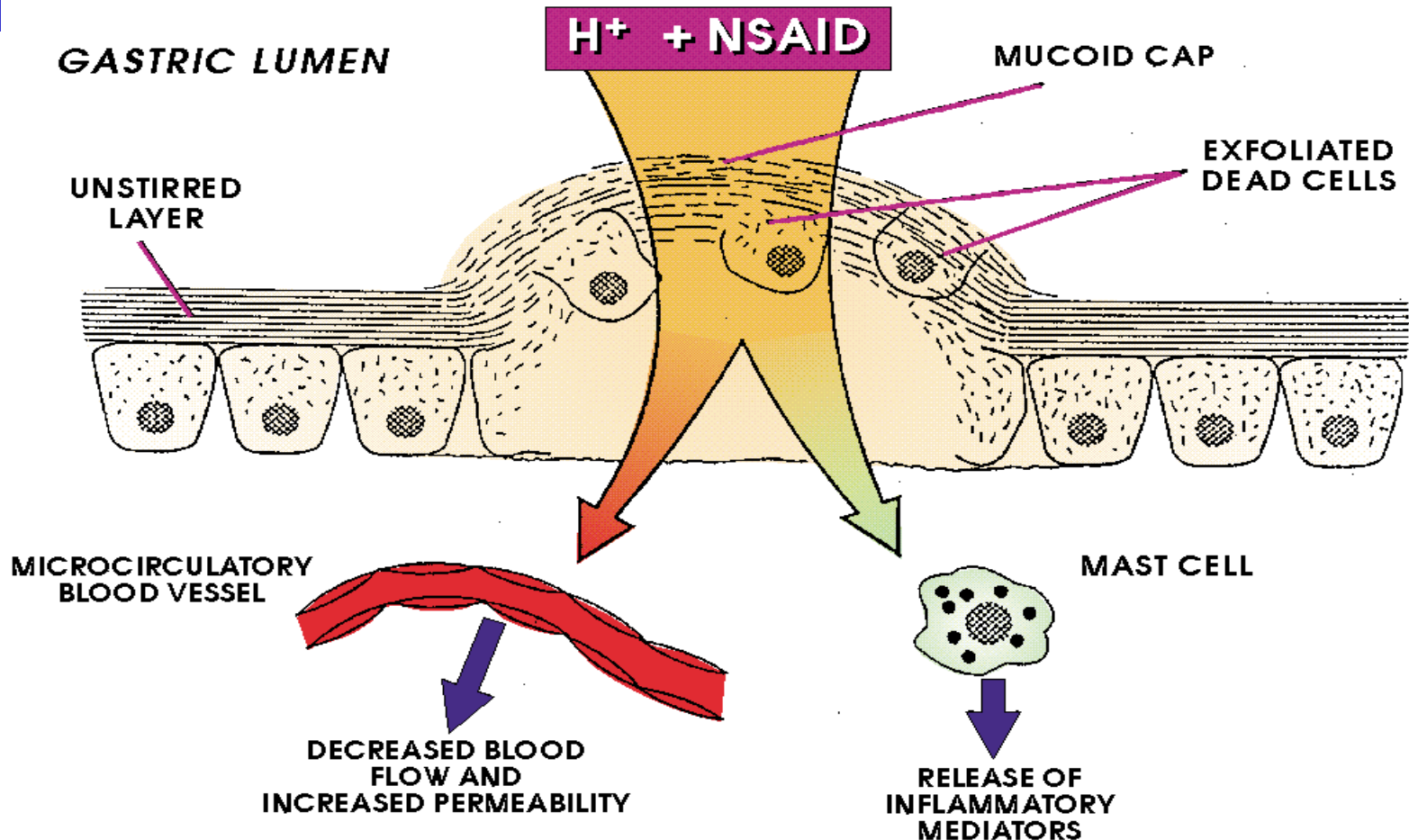
Genetic play an important role in ulcer pathogenesis.



- **NSAID**

Gastroduodenal ulceration and bleeding are the major limitations to the use of non-steroidal anti-inflammatory drugs. As in figure(2).

Figure 2: The dependence of NSAID-induced topical gastric mucosal damage upon gastric acidity (pH <3.5) and consequence of non-ionic diffusion of acidic NSAID into mucosal cells with damage of these cells, disturbance of microcirculation and activation of mast cells releasing inflammatory mediators .





Patients and Methods

This prospective study was conducted at Al_Basra general hospital and Al Sader teaching hospital in Basrah city, Iraq. Medical records of 176 patients undergoing upper gastrointestinal (GI) endoscopy figure (3) from oct 2017 to April 2018 were reviewed. Patients who were considered eligible for the study were interviewed and a structured history was obtained using a questionnaire information as shown table(2).

[Handwritten signature]

استمارة ناظور المعدة
Endoscopy Unit- OGD

Date : / /
Referred by :

Name :	<i>[Handwritten name]</i>	Age :	
Case Record :			
Occupation :	<i>[Handwritten occupation]</i>		
Consultant :			
Drugs :	<i>[Handwritten drug]</i>		
Anesthesia :			
Endoscope type :	<i>[Handwritten type]</i>		
Clinical notes :	<i>[Handwritten notes]</i>		

Oesophagus :

Upper :
Middle : } *[Handwritten: Normal]*
Lower :

Stomach :

Body :
Antrum : } *[Handwritten: Normal]*
Pylorus : *[Handwritten: Bilirubin Gastritis]*

Duodenum :

Bulb : *[Handwritten: Active D.U]*
Desending :
others : *[Handwritten: No bleeding at time of exam]*

Conclusion :

Suggestion :

[Handwritten: Active Duodenal ulcer]



[Handwritten signature]
Signature
استشاري الطب الباطني
مستشفى

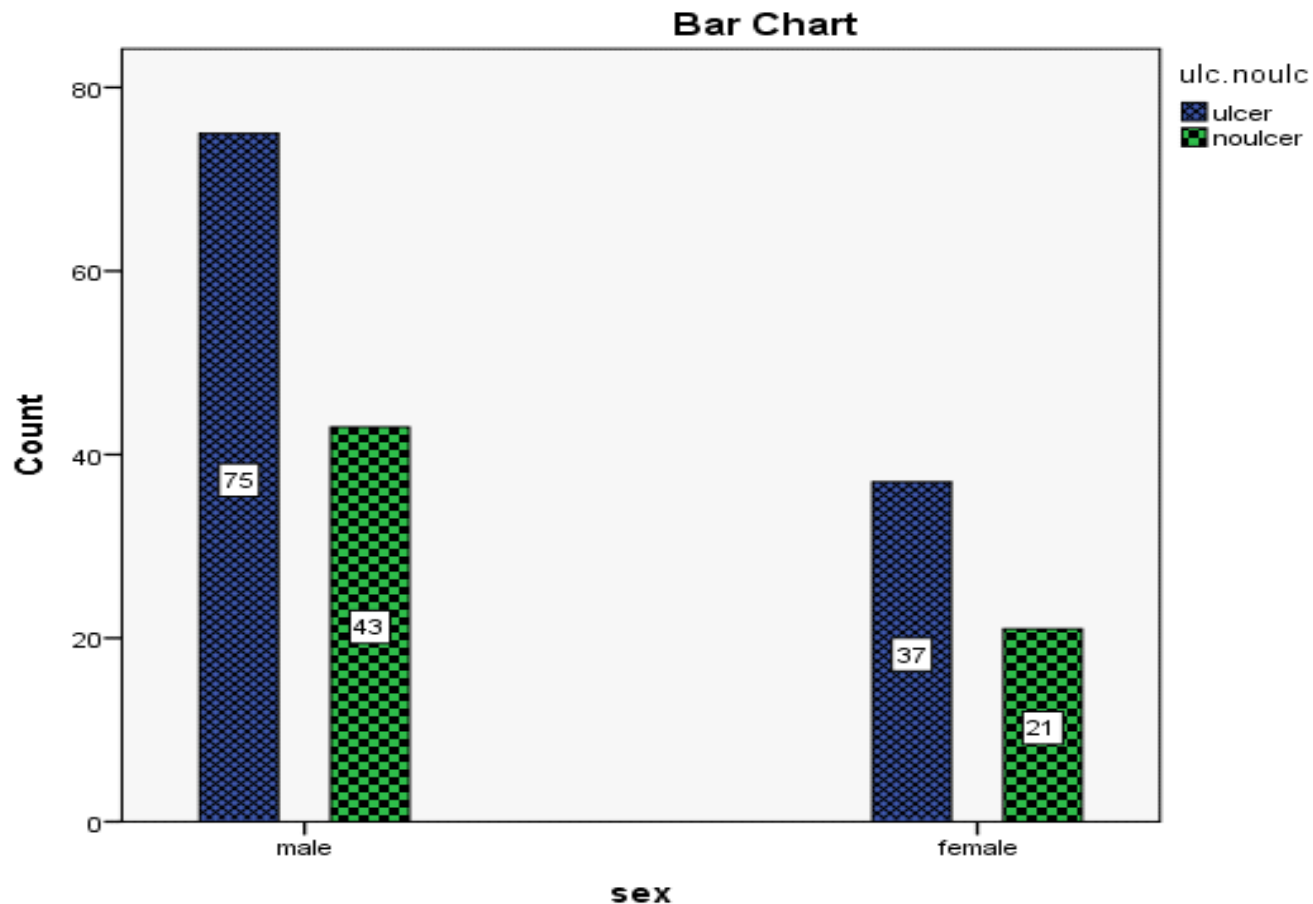
Name						
Age						
Sex						
Weight						
Peptic ulcer time of diagnosis						
Current smoking habits						
Alcohol consumption						
Disease history		H.T.	D.M.	Thyroid disorder	Asthma	other
Drug history	Drugs groups	Types _____ dose			Approximate duration of intake	
	NSAIDs					
	Opioids					
	Benzodiaz					
	Analgesics					
	SSRI					
	Corticosteroids					
	Vitamin and minerals					
	CVS drugs					
Others						



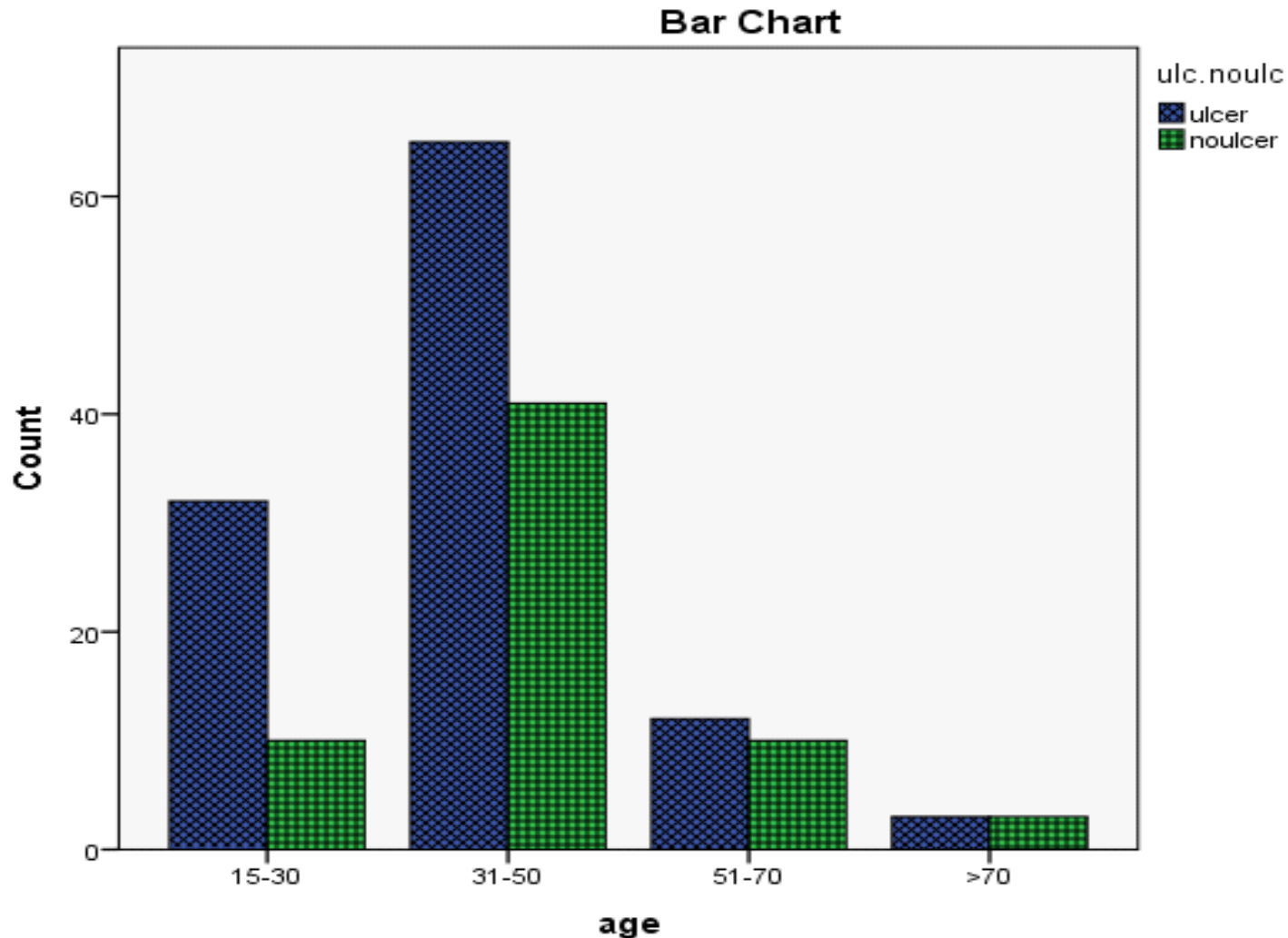
Results

176 person included in the present study, 112(63.6%) of the patients diagnosed endoscopically as peptic ulcer and 64(36.4%) individual without peptic ulcer.

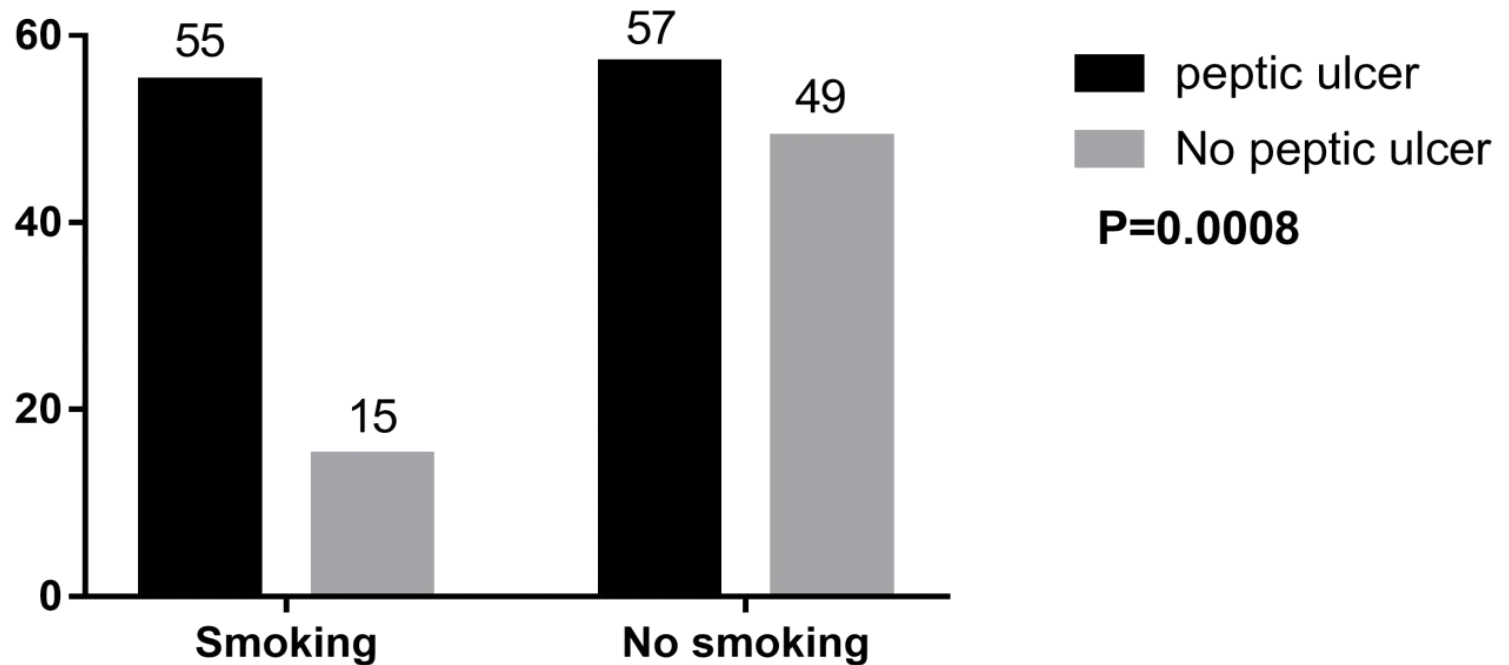
Figure (4): Demographic characteristics of sex distribution. p-value=0.556 no significant risk factor.



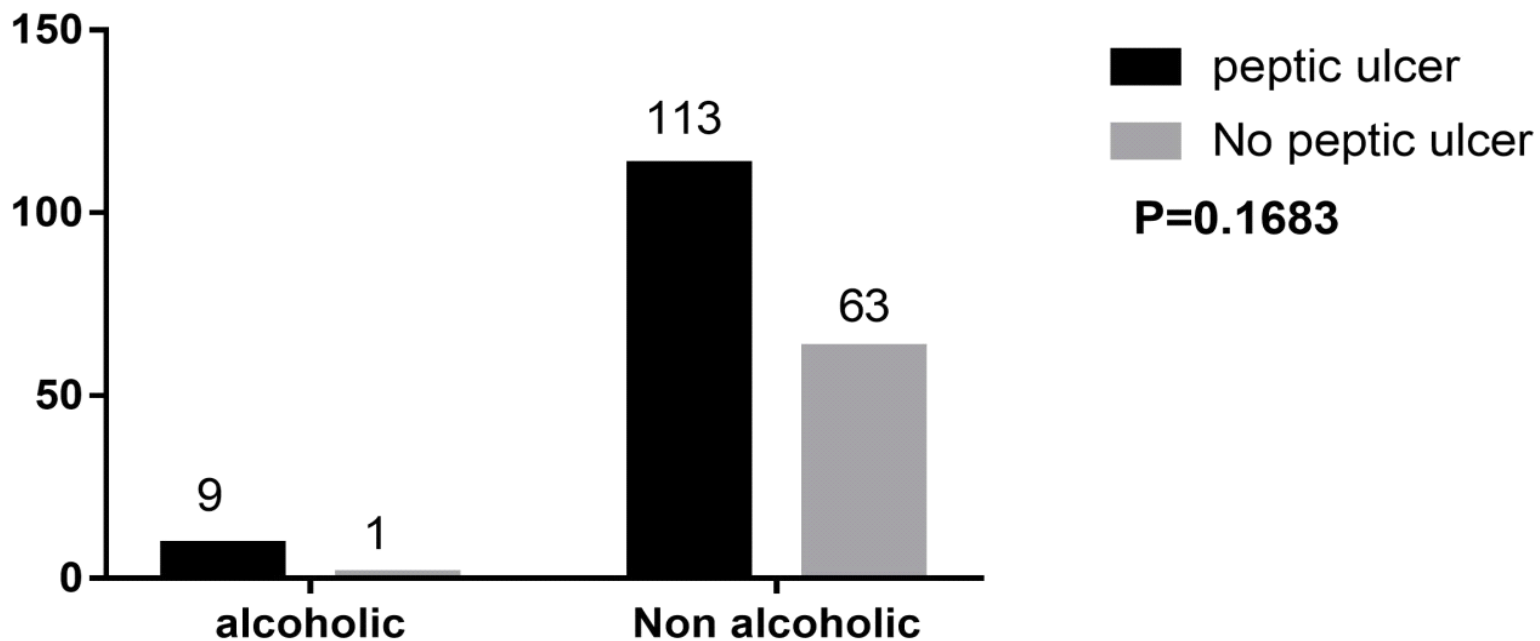
Figure(5): Demographic characteristics of ages distribution. p-value=0.224 no significant risk factor



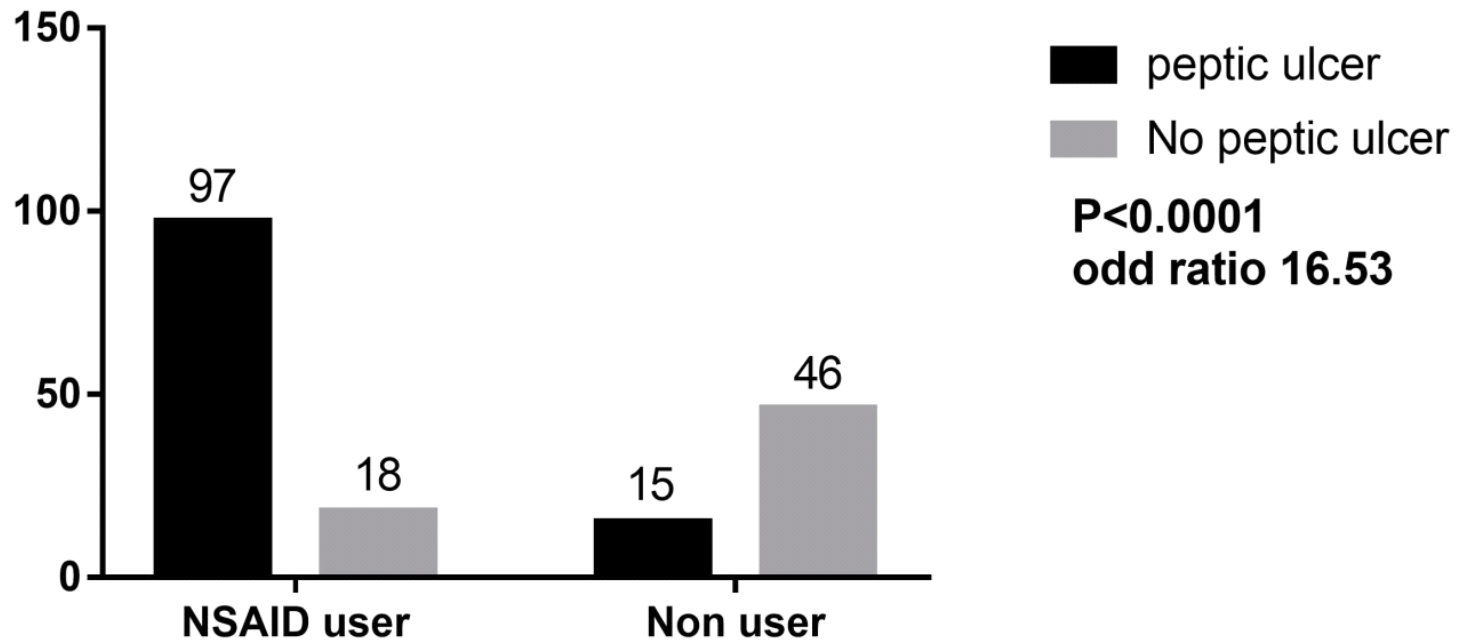
Figure(6):Effect of smoking on ulcer development. Smoking showed significant role $P \leq 0.05$.



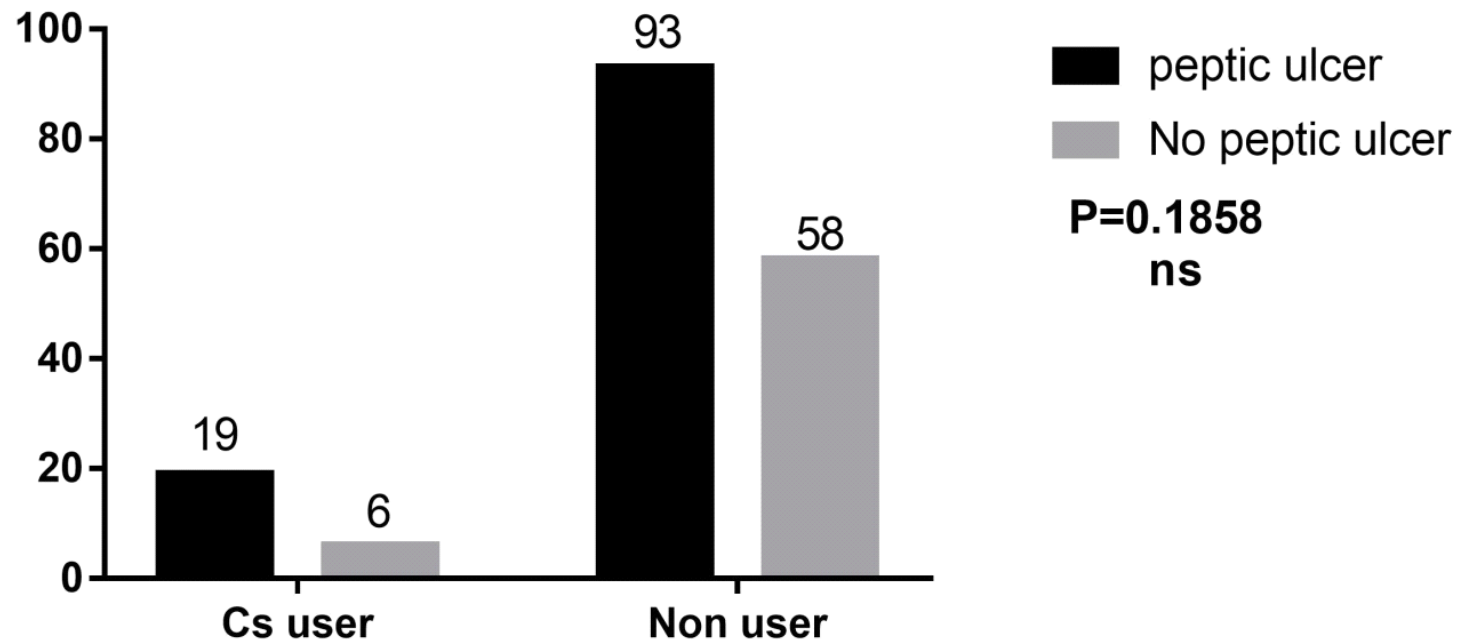
Figure(7): Effect of alcohol consumption on ulcer development. Alcohol showed no significant role $P \geq 0.05$.



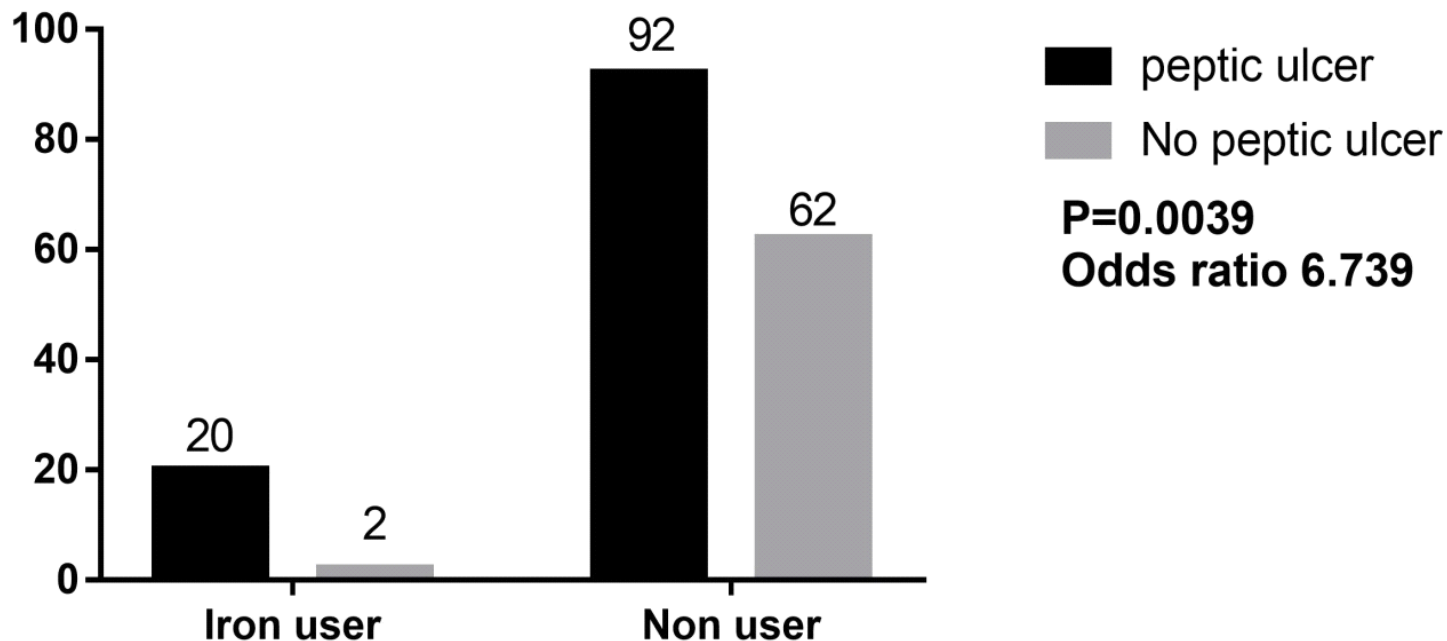
Figure(8): the effect of NSAIDs on peptic ulcer development . NSAIDs use showed significant role $P \leq 0.05$



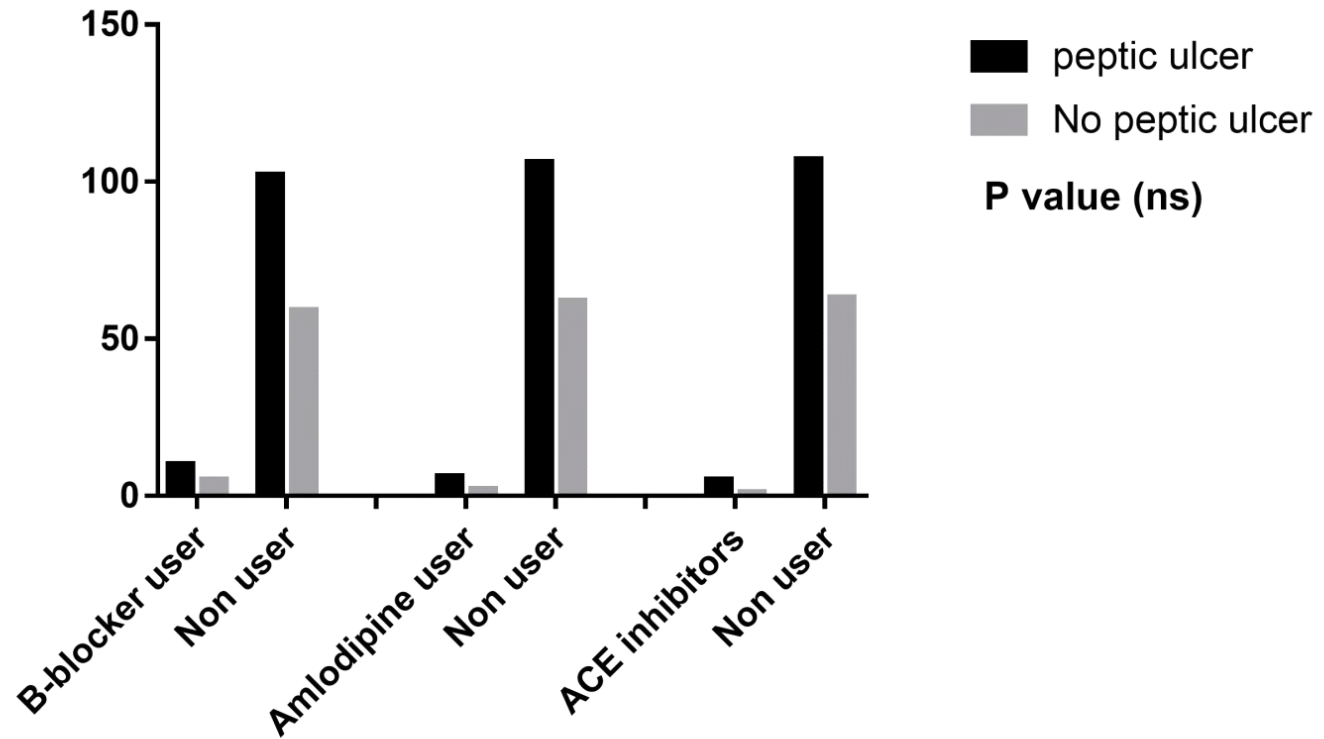
Figure(9): Effect of corticosteroids consumption on ulcer development. corticosteroids showed no significant role $P \geq 0.05$



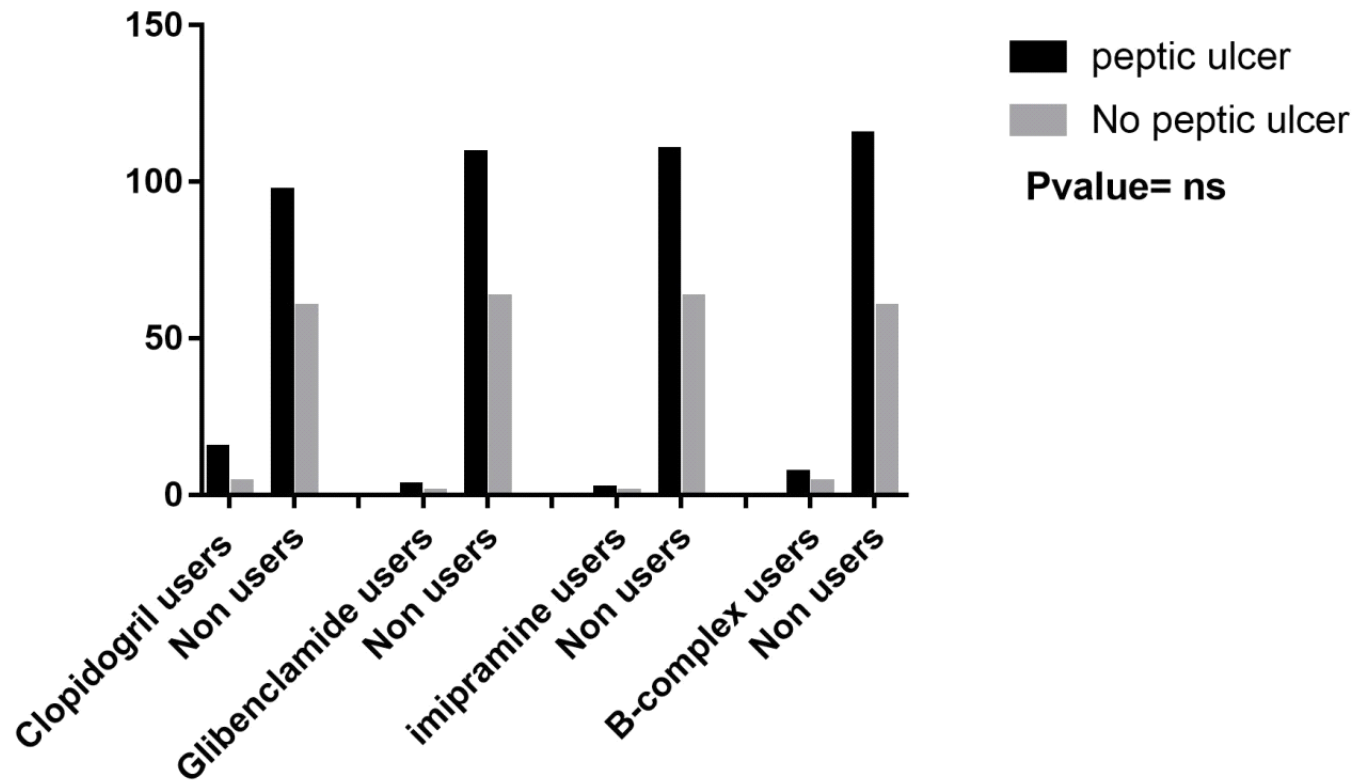
Figure(10): Risks of ulcers associated with iron use during at least previous 6months. Iron use showed significant role $P \leq 0.05$.



Figure(11): Risks of ulcers associated with drug used for treatment of cardiovascular diseases . No significant role were observed $P \geq 0.05$.



Figure(12):): Risks of ulcers associated with drug used for treatment of different diseases . No significant role were observed $P \geq 0.05$.





Conclusions

- NSAIDs consumption considered as risk factor in peptic ulcer development in people lives in Basra city, Iraq.
- Smoking considered as bad habit lead to gastric erosion and peptic ulcer development.
- Some tonics like iron gave positive results and considered as risk factor in peptic ulcer developments.
- Alcohols and clopidogril increase but not significantly the incidence of peptic ulcer development



Recommendation

- Appropriate clinical strategies could prevent many episodes of peptic ulcer bleeding: NSAIDs should be used only in patients who do not respond to other analgesics the lowest possible doses should be used and the least toxic NSAIDs should be selected.
- Stop smoking and others bad habit.
- Long term use of tonics or any compound was not free of peptic ulcer development, so don't take any drugs by yourself without asking physicians or pharmacists.