Clinical Study of Peptic Ulcer Disease

Subrata Roy
Padmashree Dr. D. Y. Patil Medical College, Hospital & Research Centre (Pune)

Research Article

Article Info:

Received on:27/01/2016
Accepted on: 25/02/2016

QR Code for mobile

Literati

Open Access

ABSTRACT :

Peptic ulcer disease refers to painful sores or ulcers in the lining of the stomach or first part of the small intestine, called the duodenum. Peptic ulcers are present in around 4% of the population.They newly began in around 53 million people in 2014.

To understand the basis etiology and pathogenesis of the fundamental efforts and basic knowledge is required. The study has planned with following objective to understand the distribution of peptic ulcers.

The 40 peptic ulcer disease patients were enrolled in to the study. The age group of the patients are from 20-70 years. The patients visited to Out Patient Department (OPD) and in-patient department (IPD) of a tertiary care hospital in North India were considered in the study.

From the study it has been found that Duodenal ulcers are more common than gastric ulcers. The comments age of the ulcers are above 30 years. The majorly observed site of the ulcer pain is the epigastrium. The burning & the hunger is the commonest type of pain observed in the Duodenal ulcer. All patients suffering from the ulcers are doing smoking as well as alcohol consumption. The previous regular consumptions of the NSAID's & Steroids are the also one of the factors for the duodenal & gastric ulcers.

Keywords: Duodenal ulcer; Gastric ulcer, Peptic ulcer

INTRODUCTION:

Peptic ulcer disease refers to painful sores or ulcers in the lining of the stomach or first part of the small intestine, called the duodenum.

Peptic ulcer disease (PUD), also known as a peptic ulcer or stomach ulcer, is a break in the lining of the stomach, first part of the small intestine, or occasionally the lower esophagus [1][2]. An ulcer in the stomach is known as a gastric ulcer while that in the first part of the intestines is known as a duodenal ulcer. The most common symptoms are waking at night with upper abdominal pain or upper abdominal pain that improves with eating. The pain is often described as a burning or dull ache. Other symptoms include belching, vomiting, weight loss, or poor appetite. About a third of older people have no symptoms [1]. Complications may include bleeding, perforation, and blockage of the stomach. Bleeding occurs in as many as 15% of people [3].

Peptic ulcers are present in around 4% of the population. [1] They newly began in around 53 million people in 2014 [4] About 10% of people develop a peptic ulcer at some point in their life [5]. They resulted in 301,000 deaths in 2013 down from 327,000 deaths in 1990 [6]. The first description of a perforated peptic ulcer was in 1670 in Princess Henrietta of England [3] H. pylori was first identified as causing peptic ulcers by Barry Marshall and Robin Warren in the late 20th century,[7] a discovery for which they received the Nobel Prize in 2005.[8]

No single cause has been found for ulcers. However, it is now clear that an ulcer is the end result of an imbalance between digestive fluids in the stomach and duodenum. Most ulcers are caused by an infection with a type of bacteria called Helicobacter pylori (*H. pylori*).

Factors that can increase your risk for ulcers include:

- Use of painkillers called nonsteroidal anti-inflammatory drugs (NSAIDs), such as aspirin, naproxen (Aleve, Anaprox, Naprosyn, and others), ibuprofen (Motrin, Advil, some types of Midol, and others), and many others available by prescription; even safety-coated aspirin and aspirin in powered form can frequently cause ulcers.
- Excess acid production from gastrinomas, tumors of the acid producing cells of the stomach that increases acid output
- Excessive drinking of alcohol
- Smoking or chewing tobacco
- Serious illness
- Radiation treatment to the area

An ulcer may or may not have symptoms. When symptoms occur, they may include:

A gnawing or burning pain in the middle or upper stomach between meals or at night

- Bloating
- Heartburn
- Nausea or vomiting

In severe cases, symptoms can include:

- Dark or black stool (due to bleeding)
- Vomiting blood (that can look like "coffee-grounds")
- Weight loss
- Severe pain in the mid to upper abdomen

Though ulcers often heal on their own, you shouldn't ignore their warning signs. If not properly treated, ulcers can

***Corresponding author:**
Dr. Subrata Roy
MBBS, MS, General Surgery,
Assistance Professor,
Padmashree Dr. D. Y. Patil Medical College, Hospital & Research Centre (Pune)

Conflict of interest: Authors reported none

lead to serious health problems, including:

- Bleeding
- Perforation (a hole through the wall of the stomach)
- Gastric outlet obstruction from swelling or scarring that blocks the passageway leading from the stomach to the small intestine

Taking NSAIDs can lead to an ulcer without any warning. The risk is especially concerning for the elderly and for those with a prior history of having peptic ulcer disease.
Following are the conditions in which probability is more
You may be more likely to develop ulcers if you:

- Are infected with the H. pylori bacterium
- Take NSAIDs such as aspirin, ibuprofen, or naproxen
- Have a family history of ulcers
- Have another illness such as liver, kidney, or lung disease
- Drink alcohol regularly
- Are age 50 or older

The pathological findings are the important sources of the information of the ulcerative diseases. The endocrinologist studying abnormal studying abnormal patterns of both gastric production and the hormonal control of gastric secretion of peptic ulcer have made important contributions [9-11].
To understand the basis etiology and pathogenesis of the fundamental efforts and basic knowledge is required. This has made the successful operational and medical therapy.
The study has planned with following objective to understand the distribution of peptic ulcers.

Methodology [12]:

All the patients are informed consents. The 40 peptic ulcer disease patients were enrolled in to the study. The age group of the patients are from 20-70 years. The patients visited to Out Patient Department (OPD) and in-patient department (IPD) of a tertiary care hospital in North India were considered in the study. All the patient's clinical history were collected. Also the complete physical examination was done.

Result & Discussion:

The data obtained from the 40 patients were given as bellows.

Table 1 : Age & Ulcer Type

Age in Years	Duodenal Ulcer	Gastric Ulcer
20-30 years	3	1
31-40 years	15	3
41-50 years	6	0
51-60 years	8	0
61-70 years	8	1
Total	36	4
Total	40	

From the above table 1 of the age and the type of ulcer it can be clear that the more ulcer prone age is form 30 years & above. The ulcers are found in all age groups. Onset of the peptic ulcers is common after the age of 30 years. In the present study average of the patient was seen 34years.

Site	Duodenal Ulcer	Gastric Ulcer
Epigastrium	13	2
Right Hypochondrium	5	0
Epigastrium & right hypochondrium	11	1
Epigastrium & Umbilicus	6	0
Umbilicus & right hypochondrium	1	0
Umbilicus & left hypochondrium	0	1
Total	36	4

The majorly observed site of the ulcer pain is the epigastrium.

Table 3 : Type of pain

	Duodenal Ulcer	Gastric Ulcer
Burning	3	1
Burning and hunger	18	3
Dull aching	6	0
Hunger	5	1
Discomfort	3	0
Total	36	4

The burning & the hunger is the commonest type of pain observed in the Duodenal ulcer.

Table 4 :Alcohol & Smoking among the patients

	Duodenal Ulcer	Gastric Ulcer
Alcohol	5	2
Smoking	15	3
Both	10	1
Total	30	6

All patients suffering from the ulcers are doing smoking as well as alcohol consumption.

Table 5: Drug History

	Duodenal Ulcer	Gastric Ulcer
NSAID's	16	1
Steroids	3	2
Total	19	3

The previous regular consumptions of the NSAID's & Steroids are the also one of the factors for the duodenal & gastric ulcers.
The peptic ulcers are emerging as the commonest problem in upcoming days. The observation of Duodenal ulcer is about 20 times more as compared to the peptic ulcers.
The commonest problem for which patients was referred are the burning sensation in the abdomen and also the heart burns. Perforation is the commonest complication of peptic ulcers followed by hemorrhage and pyloric stenosis. Surgical intervention is the first line of treatment for perforation and pyloric stenosis while haemorrhage might be managed conservatively. However, the overall attributed decrease in the incidence of surgical treatment of peptic ulcer disease is yet unjustified. [15. 16, 17] The use of proton pump inhibitors has transformed the treatment of peptic ulcer disease.

Conclusion:

Duodenal ulcer perforation is the second most common abdominal emergency in our study. After invention of the

H2 blockers and proton pump inhibitors the role of elective surgery for duodenal ulcer has been drastically decreasing, but the incidence of perforation is not much changing.

Reference:

1. Najm, WI (September 2011). "Peptic ulcer disease.". Primary care 38 (3): 383–94, vii. doi:10.1016/j.pop.2011.05.001. PMID 21872087.
2. Definition and Facts for Peptic Ulcer Disease". http://www.niddk.nih.gov/. Retrieved28 February 2015.
3. Milosavljevic, T; Kostić-Milosavljević, M; Jovanović, I; Krstić, M (2011). "Complications of peptic ulcer disease.". Digestive diseases (Basel, Switzerland) 29 (5): 491–3. doi:10.1159/000331517.
4. Global Burden of Disease Study 2013, Collaborators (22 August 2015). "Global, regional, and national incidence, prevalence, and years lived with disability for 301 acute and chronic diseases and injuries in 188 countries, 1990-2013: a systematic analysis for the Global Burden of Disease Study 2013.". Lancet (London, England) 386 (9995): 743–800.PMID 26063472.
5. Snowden FM (October 2008). "Emerging and reemerging diseases: a historical perspective". Immunol. Rev. 225 (1): 9–26. doi:10.1111/j.1600-065X.2008.00677.x.PMID 18837773.
6. GBD 2013 Mortality and Causes of Death, Collaborators (17 December 2014)."Global, regional, and national age-sex specific all-cause and cause-specific mortality for 240 causes of death, 1990-2013: a systematic analysis for the Global Burden of Disease Study 2013.". Lancet 385: 117–71. doi:10.1016/S0140-6736(14)61682-2.
7. Wang, AY; Peura, DA (October 2011). "The prevalence and incidence of Helicobacter pylori-associated peptic ulcer disease and upper gastrointestinal bleeding throughout the world.". Gastrointestinal endoscopy clinics of North America 21 (4): 613–35.
8. "The Nobel Prize in Physiology or Medicine 2005". nobelprize.org. Nobel Media AB. Retrieved 3 June 2015.
9. Scheeres DE, Dekryger LL; Surgical treatment of peptic ulcers before and after the introduction of H2 blockers. Primary Care, 1987;53(7):392-397.
10. Svanes C, Soreide J, Skarstein A, Fevang B, Bakke P, Vollset S, Svanes K, Soreide O; Smoking and ulcer perforation. Gut, 1997;41(2):177-180.
11. Smedley FH, Hickish P; Nonsteroidalanti inflammatory drugs and perforation. Gut; 1986;27:114-120.
12. Avijeet Mukherjee et al., Sch. J. App. Med. Sci., 2014; 2(4E):1484-1490.