

**LACK OF AWARENESS OF SELF-MEDICATION LEADING TO
GASTROINTESTINAL ULCER IN MANSEHRA CITY*****Dr. Samiyah Tasleem**

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Corresponding Author*Dr. Samiyah Tasleem**Department of Microbiology,
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This paper covers the aspect of introduction of gastric ulceration along with its onset due to self-medication and causative drugs as well. The incidences of gastric ulcers is noticed to be increased when rate of self-medication increases especially of NSAIDs for pain relief purposes. The unprotected medications are usually suggested by older or well educated member of the family, especially for analgesia purposes. The prevalence of self-medication and its bad outcomes is common problem in developing countries. The gastrointestinal ulcers include stomach, lower esophagus, and ulcer of small intestines. There are

several causative agents of gastric ulceration that includes inflammation due to bacteria *H. pylori* or denaturation of gastric mucosa caused by stomach acids. Among self-medication, the rate of analgesics is at peak. Gastric is main target of NSAID toxicity. The paper includes the mechanism of ulcer formation due to administration of unnecessary NSAIDs. It is concluded that more than half of the patients found in lady reading hospital Mansehra in gastroenterology and hepatology department have developed gastric ulceration due to self-medication of NSAIDs particularly aspirin due to its high availability, efficacy and also its cost effectiveness. This research study is conducted to estimate the extent of lack of awareness of self-medication leading to gastric diseases and specially ulceration. This research study is conducted at Lady Reading hospital Mansehra in departments of gastroenterology and hepatology. The objective of this research study is to estimate the prevalence of self-medication in Khyber pakhtunkhwa particularly in Mansehra region. So, this research may persuade the other researchers to take action to prevent the self-medication. Interview based data collection system is used from hospital. Proper questionnaire is prepared to conduct interview and collect data at interview spot. The report of this research shows that

prevalence of stomach ulcer is high among all gastric ulcers. Most affected population is old age with more than 10 years.

INTRODUCTION

Self-medication is a human attempted behavior against any common health problem related to physical or psychological ailments at home level. This behavior could be ingestion or application of any exogenous herbal medication, drug or dietary supplementation at home level without consultation of any health care specialist or nutritionist. The prevalence of self-medication is increased markedly due to preparation of labeled medication. Such medications are used without supervision of any health care specialists and cause several adverse effects that may lead to worsening of health condition or disturbance of gastric function. The prolonged use of these medications leads to gastric ulceration (Alison Blenkinsopp, 1996).

Gastric ulcers are sores that occur as a result of rupture of gastric mucosa. These sores formation is observed throughout the digestive system including lower esophagus, stomach and small intestines. There are several causative agents of gastric ulceration that includes inflammation due to bacteria *H. pylori* or denaturation of gastric mucosa caused by stomach acids. This health condition can be diagnosed by assessing its symptoms at clinical level. Its symptoms includes stomach pain specially after ingestion of fatty meal, weight loss due to inadequate illness, bloating, nausea, acid reflux and heart burn. Endoscopy is clinical parameter to confirm the incidence of gastric ulcer (Abraham Nomura, Grant N. Stemmermann, Po-Huang Chyou, Guillermo I. Perez-Perez, & Martin J. Blaser, 1994).

Among self-medication, the rate of analgesics is at peak. It is estimated that approximately 35 million people worldwide do self-medication of NSAID and approximately 30% of them are targeted to induce gastric ulceration. Gastric is main target of NSAID toxicity (Vikas Dhikav*, 2003). Analgesics are non-steroid anti-inflammatory drugs (NSAID) and are used to relieve pain. COX-2 enzyme is involved in production of prostaglandin and leukotriene that leads to pain sensation. NSAID inhibits enzyme COX-2 and production of prostaglandin and leukotriene is also inhibited leading to analgesia (pain relief). But this mechanism has high interference with endotoxins that includes IL-1, hypoxia, epidermal growth factor (EGF), benzo a pyrene, and transforming growth factor beta 1 (TGF-beta 1) and leads to kidney dysfunction or gastric ulceration. (Fosslien, 1998).

The review of literature available on gastric ulceration due to self-medication reveals that more than half of the patients found in hospital gastroenterology department have developed gastric ulceration due to self-medication of NSAIDs particularly aspirin due to its high availability, efficacy and also its cost effectiveness (J. Hallas, 2009).

Drugs of NSAIDs class

Aspirin	Indomethacin
Celecoxib	Ketoprofen
Diclofenac	Nabumetone
Diflunisal	Naproxen
Etodolac	Oxaproxin
Ibuprofen	Piroxicam
Salsalate	Sulindac
Tolmentin	Meloxicam

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METHODOLOGY

Systematic review study design is used to investigate the prevalence of self-medication in gastroenterology and hepatology departments of Lady Reading Hospitals Mansehra (Lamberts, 2006). In order to collect data for this research study, interview was conducted in gastroenterology and hepatology departments of Lady Reading Hospitals Mansehra. A proper Questionnaire including sequence wise questions to be asked is prepared to be filled at the interview spot. So that the suffering patients along with their health illness associated with headache or other pains could be reported to estimate the main cause of gastric ulcers either the high self-medication of NSAIDs or some other sort of illness due to poor dietary habits. Patients suffering from gastric ulcers were targeted for interview. Particular interview timings were decided to interview the patents of gastroenterology departments of hospital. Interview was conducted in this way so that we could determine their views that either they consider high self-medication of NSAIDs a cause of their disease or not. The patient by himself was targeted for this interview to provide the whole information of his health condition along with ways adapted by him to overcome his health conditions as well. Along with this aspect eating

habits were also mentioned in questionnaire used for data collection to reach the fundamental cause of illness of gastric ulcer.

Quota sampling technique is used to investigate the prevalence of self-medication in Peshawar city (Cris Beauchemin, 2011). The patients of department of gastroenterology and hepatology having gastric ulcer were interviewed daily for a period of one year. The data was collected after struggle of approximately 11 to 12 months. Direct interview from patients was conducted to estimate their information level regarding this illness along with cause of his illness. Mostly patients were found at homes in developing countries because these areas are not well developed and educated but the data collection was conducted at hospital in relevant departments including indoor and outdoor patients. Mostly patients were not familiar to health services and their instant provision, so they tend to treat any illness at home level using old home based remedies or self-medication.

Inclusion criteria

The patients with gastric ulcer having age 10 to 70 years were interviewed for this research study.

Exclusion criteria

The patients with gastric ulceration but having age more than 70 years were not interviewed. Data of children under 10 years was also excluded from this research study. All those patients with H. pylori positive on biopsy were excluded. Gastrointestinal carcinoma patients were also excluded from this research study. Patients who were not native of Khyber Pakhtunkhwa or had any difficulty in understanding the native language were also excluded from this research study.

Data collection from hospitalized patients

Patient's Name	Age	Gender	Occupation	Diagnosis
Duration of gastric ulcer?				
Common health conditions before onset of gastric ulcer?				
What you use to do in case of pain onset in any part of body?				
Do you have knowledge of some drugs?				
Which drugs are used for pain relief?				
How many tablets you use per week to improve your health condition by yourself?				
Do you believe that medications prescribed by specialists are better than self-medication?				
Share your dietary history along with food choices and their time of consumption?				

RESULTS

The total patients to be interviewed with gastric ulcer from gastroenterology and hepatology department of Lady reading hospital Mansehra were 2088. So, 2088 patients suffering from gastric ulcer were interviewed. 1234 patients were reported with stomach ulcer including 288 children having age 10 to 16 years, having 119 male and 169 female patients, and 946 patients of stomach ulcer were more than 16 years old, 744 females and 202 males. 626 patients were reported with lower esophagus ulcer including 386 children of 10 to 16 years age group and 240 patients of age group more than 16 years. The 94 out of 386 children were male and 292 patients were female. Similarly, 240 patients with age more than 16 years include 188 females and 52 males. 228 patients with small intestinal ulcer were reported having 118 females and 110 males having age group more than 19 years.

Incidence of prevalence of self-medication leading to gastric ulcer

Type of ulcer	Total patients	Fe (children)	M (children)	Fe (old age)	M (old age)
Stomach	1234	169 (10 - 15 y)	119 (10 - 15 y)	744 (≥ 16 y)	202 (≥ 16 y)
Lower esophagus	626	292 (10 - 15 y)	94 (10 - 15 y)	188 (≥ 16 y)	52 (≥ 16 y)
Small intestines	228	-	-	118 (≥ 19 y)	110 (≥ 19 y)

CONCLUSION

The report of this research study shows that prevalence of stomach ulcer is high among all gastrointestinal ulcers. Small intestinal ulcer has least prevalence. Most affected population is older age with more than 16 years age group. The collected data shows that people are unfamiliar of the causes of gastrointestinal ulcers so incidence of prescribed medication for analgesia purposes was not observed at all. It is reported that even in hospitalized cases patients and their care givers are not suggested to prevent the use of self-medication to avoid gastric disturbance. Lack of knowledge is observed in the population of Khyber pakhtunkhwa. According to them for common pain incidence they do not have time to visit doctors and to get prescribed medication. Moreover, some patients quoted that doctors also do prescribe the same drugs that is why they tend to administer NSAIDs by themselves. It's also reported that mothers also suggest their children NSAIDs for analgesia purposes. However, most of the children get gastric ulcer due to poor dietary habits. Several intervention strategies are needed to spread awareness and take actions to replace self-

medication with prescribed medication by a health care specialist. It is also observed that educated people have high rate of self-medication as compared to illiterate people.

This research study is limited because data on small scale is collected; a big data collection program is not implemented to collect data from several hospitals for this research study. Also in addition to this, the report of this research only shows limited prevalence of gastric ulcers due to self-medication. Main causative agents are not also identified carefully in this research study. The main etiology of incidence gastric ulcer is not identified carefully. Additionally, no intervention is implemented to guide the people along with the prevention of self-medication to control gastric diseases. The immigrants in Khyber pakhtunkhwa are also not interviewed. Population of this hospital suffering from gastric ulcer having age group more than 70 years and less than 10 years was also not considered for this research study. No experienced interviewer or psychologist was hired to conduct interview to relax the target audience to share the authentic data to avoid the extent of wrong estimate of prevalence of self-medication.

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