Introduction

Peptic ulcer disease (PUD) is one of the most common diseases affecting the gastrointestinal tract. It causes inflammatory injuries in either the gastric or duodenal mucosa, with extension beyond the submucosa into the muscularis mucosa **(Shrestha and Lau, 2006)**.

PUD results from the imbalance between defensive factors that protect the mucosa and offensive factors that disrupt this important barrier. Some mucosal protective factors include the water-insoluble mucous gel layer, local production of bicarbonate, regulation of gastric acid secretion, and adequate mucosal blood flow. Aggressive factors include the acid-pepsin environment, infection with Helicobacter pylori, and mucosal ischemia (**Shah and Carroll, 2006).** Non-steroidal anti-inflammatory drugs and aspirin also interfere with the protective mucous layer by inhibiting mucosal cyclooxygenase activity, and reducing levels of mucosal prostaglandins **(Shayne, 2006).**

The classical symptom of duodenal ulceration is epigastric pain occurring before meals or overnight, relieved by antacids, milk, food, and acid-suppressing treatments, while patients with gastric ulcer have a less stereotypical presentation. An epigastric pain is more likely to occur soon after meals and somewhat less likely to be relieved by food. Anorexia, nausea, vomiting, and weight loss are more common than in duodenal ulcer **(Hawkey and Atherton, 2005).**

Complications of peptic ulcer may include bleeding, perforation, penetration, or obstruction **(Hess, 2004).** Patients with gastric ulcers are also at risk of developing gastric malignancy **(Shrestha and Lau, 2006)**.

It is revealed that nearly 50% of all cases of acute bleeding from the upper gastrointestinal tract are caused by peptic ulcers. Treatment with endoscopy can control bleeding in nearly 90% of cases **(Spechler, 2002).** Several modalities of endotherapy are available, such as injection therapy, coagulation therapy, haemostatic clips, argon plasma coagulator. Combination therapy with epinephrine injection followed by thermal coagulation appears to be more effective than monotherapy for ulcers with a visible vessel, active hemorrhage, or adherent clot. Moreover endoscopic therapy reduces the likelihood of recurrent bleeding and decreases the need for surgery. However, surgery still has a role in life-threatening hemorrhage that cannot be controlled with medical management alone **(Shrestha and Lau, 2006).**

Although perforation is a much less frequent complication than bleeding, it is still a significant problem in people with unsuspected or untreated peptic ulcers **(Shiotani and Graham, 2002).** Patients should be resuscitated with intravenous fluids and given broad-spectrum antibiotics. Laparotomy to close the perforation should be carried out as soon as possible after resuscitation, although in patients with a high operative risk who are improving on conservative treatment, continued non-operative management may be possible **(Hawkey and Atherton, 2005).**

In rare instances, an ulcer can create an abnormal hole, or connection, between the stomach and another nearby part of the body such as the small intestine, colon, or pancreatic duct. This connecting structure is called a fistula. In many cases, fistulas caused by ulcers can heal with treatment of the ulcer. Sometimes surgery may be needed to close the fistula **(Soybel, 2000).**

Ulcers in the upper small intestine (duodenum) or in the valve between the stomach and small intestine (pylorus) can cause the digestive tract to become narrow or close off completely. This condition is known as obstruction (**Hess, 2004).** Endoscopic balloon dilatation and/or treatment with acid suppression can restore gastric emptying. Some patients require surgery by antrectomy and Billroth I or II procedures **(Hawkey and Atherton, 2005)**.

Malignancy should be strongly considered in the case of a persistent non-healing gastric ulcer. Endoscopic ultrasound examination may be helpful for assessing mucosal invasion or detecting associated adenopathy in such patients. Surgical resection should be considered if evidence of cancerous transformation is present **(Shrestha and Lau, 2006)**.

Moreover, indications for surgical therapy are ulcer perforation, gastric outlet obstruction, giant gastric ulcer, and a transfusion requirement of more than 6 units in 24 hours**.** Distal gastrectomy with Billroth I (Gastroduodenostomy) or Billroth II (Gastrojejunostomy) is the preferred procedure for these complications. The surgery involves the removal of both the ulcer (mostly on the lesser curvature) and the diseased antrum **(Shrestha and Lau, 2006)**.