

Caring for the person with gastritis

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Gastritis – is a broad term that is associated with inflammation of the lining of the stomach and can be acute or chronic. Waugh and Grant (2006) suggest that this is a common condition and occurs when there is either too much gastric acid in the stomach or not enough mucus to protect the surface of the stomach.

Gastritis is more common in older people but can occur at any age with varying degrees of severity. It occurs equally in both sexes. If left untreated some forms of gastritis can have serious ramifications for the person and may lead to haematemesis, shock and death.

The gastrointestinal tract

The gastrointestinal tract is sometimes called the digestive system or alimentary canal. There are a number of features associated with the gastrointestinal tract, it begins with the mouth and includes the following:

- Pharynx
- Oesophagus
- Stomach
- Intestines
- Rectum
- Anus.

The key purpose of the gastrointestinal tract is to provide the body with water, nutrients and electrolytes to enable tissues to function and to sustain life. Food and fluids are broken down into nutrients that are then absorbed into the blood stream; the gastrointestinal tract carries out the roles of digestion, absorption and the elimination of waste products. *Figure 1* provides an overview of the gastrointestinal tract.

The layers of the gastrointestinal tract are basically the same throughout although there are some differences (Carter 2007).

The stomach

The stomach is a hollow muscular organ, it is 'J' shaped and located below the diaphragm, made up of four regions, it is a pouch that holds food. The upper portion is known as the cardiac region, the next aspect is called the fundus, the body and a pyloric region is the middle section. There are four layers of the stomach:

- The Mucosal layer
- The Submucosal layer
- The Muscle layer
- The Serosa.

Abstract

Gastritis (inflammation of the lining of the stomach) can be acute or chronic. Healthcare assistants and assistant practitioners are likely to care for people with gastritis in a variety of care settings and so it is important that they understand the condition and the care required. This article provides the reader with a brief overview of the gastrointestinal tract along with the clinical manifestations associated with the condition and the investigations carried out that can lead to a definitive diagnosis. The care required for the person is outlined as well as an overview of some potential teaching opportunities. A glossary of terms is provided.

Key words

■ Acute ■ Chronic ■ Teaching ■ Prevention

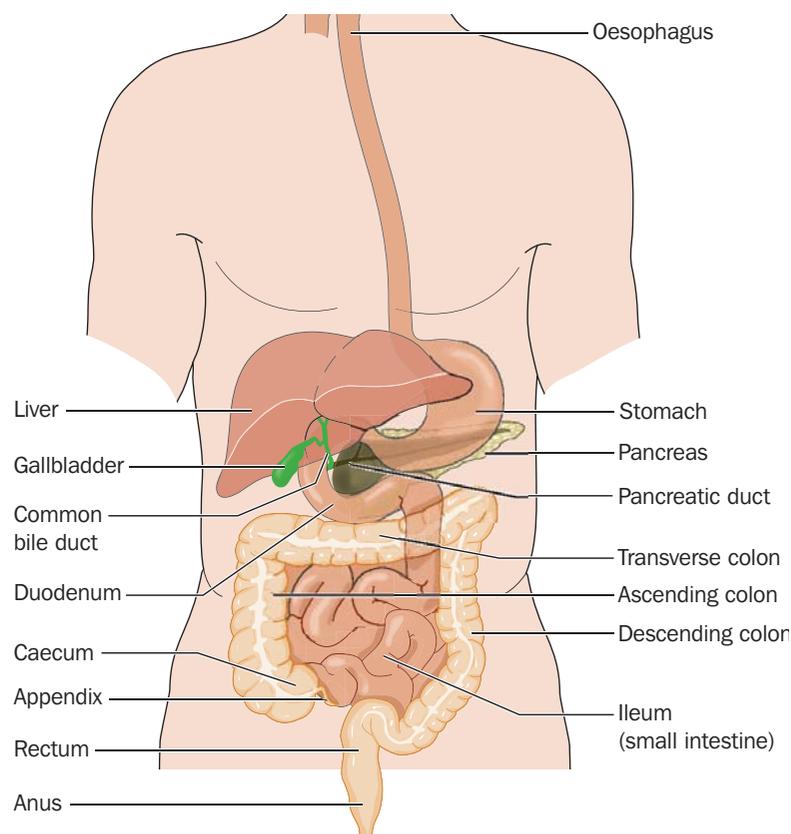


Figure 1. The gastrointestinal tract

There are special glands situated in the stomach that produce enzymes and acid. The cells of the mucosa act as a protective mechanism for the stomach, protection is from acid secretions and also the digestive enzymes of the stomach.

Secretions of the stomach

There are several enzymes and other substances that are secreted by the stomach. These are:

- Mucus – protecting the lining and providing lubrication for food
- Hydrochloric acid – protects the stomach from bacteria
- Intrinsic factor – assists in the absorption of vitamin B12
- Gastrin – encourages the release of hydrochloric acid
- Pepsinogen – aids with the digestion of protein.

The food that is eaten stays in the stomach for approximately 3–4 hours. The secretions and the food are combined together by muscular activity in the stomach into a thick, semi-solid and acidic substance known as chyme. Chyme leaves the stomach via the pyloric sphincter and then enters the duodenum.

Functions of the stomach

The stomach carries out a variety functions:

- It is a reservoir for food which is stored until it is passed into the duodenum. Hydrochloric acid helps to liquefy the contents
- Proteins are converted into peptones by pepsins
- Milk is curdled and casein is released
- The digestion of fats commences in the stomach
- Intrinsic factor is produced, this is necessary for the absorption of vitamin B12.

Causes of gastritis

There are two types of gastritis; acute and chronic. There are a variety of causes of both types which are explained below.

Acute gastritis

Acute gastritis is a form of gastritis that is characterized by haemorrhage and erosions. Some causes of acute gastritis are exacerbated by irritating foods (including caffeine), excessive alcohol consumption or smoking. Bacterial infections caused by food poisoning, for example, salmonella, may result in acute gastritis.

There are a number of medications when taken over a long period of time can cause gastritis, for example:

- Aspirin and non-steroidal anti-inflammatory drugs
- Cytotoxic drugs and corticosteroids
- Radiation therapy

Ingestion of some poisons (accidental or intentional), for example, corrosive substances will damage the mucosal lining of stomach.

Changes associated with the stomach lining will include increased acid production, inflammation, reddening

of the mucosal layer, oedema and superficial erosion of the stomach (LeMone and Burke, 2008). Normally the gastric mucosa regenerates quickly; acute gastritis therefore is a self-limiting condition, with healing and resolution occurring within several days. There are a number of potentially serious complications associated with acute gastritis:

- Gastric perforation
- Haemorrhage
- Peritonitis.

Chronic gastritis

Chronic gastritis is a milder, longer-lasting condition. As with acute gastritis, chronic gastritis may be caused by recurring exposure to irritating substances such as some drugs, smoking, excessive alcohol consumption and some environmental agents. The most common cause of chronic gastritis is with infection by the *Helicobacter pylori* (*H. pylori*) (Waugh and Grant, 2006). *H. pylori* is a microbe that can live in the gastric mucosa and is often associated with other gastric conditions, such as peptic ulcer disease. *H. pylori* can occur at any age but is more prevalent in those people who are aged over 60 years.

Some autoimmune conditions (progressive diseases) such as pernicious anaemia may cause changes in the mucosal lining. When the mucosal lining is destroyed some of the important cells that secrete hydrochloric acid and the intrinsic factor are also damaged and fail to function (the intrinsic factor is a glycoprotein that is produced and secreted by specific cells of the stomach. It forms a complex with vitamin B12 that is eaten in the diet). When calcium ions are present along with and a low pH, vitamin B12 is taken up by the cells and intrinsic factor is rereleased into the gut. It is vital for the absorption of vitamin B12. The mucosal layer becomes thinner and deteriorates. Initial superficial changes in the mucosa appear and there is a decrease in mucus production. This changes as the condition worsens with deep portions of the mucosa thinning and becoming atrophic.

Signs and symptoms

Symptoms of gastritis can be vague and can vary from mild to severe. The symptoms the person experiences will depend on the type of gastritis, for example, in chronic gastritis the person may be asymptomatic until the changes in the stomach are so far advanced that they interfere with digestion and gastric emptying. Those people with chronic gastritis may not have any severe symptoms but experience a loss of appetite or nausea. Some of the symptoms associated with gastritis include:

- Upper abdominal discomfort or pain
- Nausea and vomiting (there may be haematemesis)
- Diarrhoea (there maybe melaena)
- Bad taste in the mouth
- Loss of appetite (anorexia)
- Indigestion
- Shock.

Glossary

Absorption	Transfer of nutrients into the bloodstream
Acute	Of sudden onset
Antiemetic	Medications given to relieve nausea and vomiting
Asymptomatic	Without symptoms
Atrophy	A wasting away or reduction in size
Biopsy	Removal of a sample of tissue for examination
Digestion	The process of breaking down food into simple elements and nutrients
Chronic	A persistent and lasting condition
Enzymes	Substances that have the ability to break down chemical bonds
Haematemesis	Vomiting of blood
Hypotension	Low blood pressure
Intrinsic factor	A product produced by certain cells of the stomach and is essential for the absorption of vitamin B12
Oedema	Fluid retention in body tissue
Mucus	A slippery secretion produced by mucus membranes to protect structures
Melaena	A black tarry stool that contains blood
Proton pump inhibitor	A group of medications used to prevent the release of acid in the stomach
Tachycardia	Fast heart rate usually over 100 beats per minute

Diagnosing gastritis

A diagnosis of gastritis is usually reached by taking a medical history - this requires careful listening to the person describing their symptoms. Questions that are posed should be asked in such a way that the person can understand them; they should be asked in a respectful and considerate manner, focusing upon finding out whether there has been any exposure to causative agents such as smoking or excessive alcohol consumption.

It should be determined if the patient has vomited and if so how much and what type of vomitus, for example, haematemesis, if the person has had diarrhoea - how much and a description, was there any melaena? Usually the abdomen is palpated and there may be abdominal distension, tenderness and guarding. Bowel sounds may be normal or hyperactive. The person may have a tachycardia, hypotension, they may be restless or pale, equally their appearance may be normal.

Investigations

Primarily diagnosis is made by taking a detailed history, in some instances other tests may be needed to make a definitive diagnosis. Specimens of faeces or vomitus may be sent to the laboratory to determine if there is any occult blood present. A blood test measuring haemoglobin may reveal anaemia as a result of gastric erosion. A breath test assesses if urea is present, this can determine if *H. pylori* is present.

When the symptoms are vague, further investigations may be required and an endoscope (a visual examination of the stomach through a special scope) may be required. This is a thin flexible telescope with a light source at the end and is passed into the stomach via the mouth. The endoscope has the potential to identify any areas of bleeding or to

allow a biopsy of the stomach to be taken for analysis. The healthcare assistant (HCA) or assistant practitioner (AP) may be required to assist the person prior to, during and after the examination. It is important that local evidence-based policy and procedure is adhered to.

Care and treatment

Often those people with gastritis are cared for in the community setting, when their condition deteriorates they will be cared for in a hospital setting where there may be a need to correct dehydration that has occurred through vomiting and/or diarrhoea. If haemorrhage has occurred a blood transfusion is usually required to correct anaemia, there may also be a need for surgical intervention.

There are a number of medications that may be prescribed to reduce the amount or effects of hydrochloric acid on the gastric mucosa, for example, lansoprazole, omeprazole. There are a number of issues that need to be considered when assisting with the administration of these medications, for example, they must not be crushed, smoking, the use of alcohol, aspirin and non-steroidal inflammatory drugs must be avoided when taking the medication as these substances may interfere with gastric healing.

Some drugs can be used in an attempt to irradiate the *H. pylori*. Often this incorporates a combination drug therapy made up of two antibiotic drugs and a proton pump inhibitor.

One objective of treatment should be to eliminate the cause if possible. The gastrointestinal tract of the person with acute gastritis should be rested, therefore it is common to put the person on nil by mouth. If nausea and vomiting are problematic then an intravenous infusion and antiemetic medications may be needed. Monitoring of fluid balance and vital signs must be maintained according

Key Points

- Gastritis is common and may be caused by a variety of factors.
- Severity depends on the causative factors.
- Symptoms can be vague.
- If left untreated, some forms of gastritis can lead to serious complications.
- Healthcare assistants and assistant practitioners are ideally placed to offer teaching to people with gastritis concerning a number of important issues.

to local policy, recording and reporting any change in the person's condition to a registered healthcare professional.

The person may require the HCA or AP to assist them with the activities of living, providing physical and emotional support. A detailed assessment of needs must be carried out in order to help the person and to ensure they are as independent as possible with respect to their care needs, ensuring that comfort is provided in the most appropriate way. At all times the HCA and AP must explain to the person the reasons for the various elements of care and treatment. If the HCA or AP feels unable to do this in a competent and confident manner then they must refer the person to a registered healthcare practitioner.

Teaching opportunities

The HCA and AP have significant roles to play in helping those who have gastritis. It is important that the help and support they offer people is correct and evidence based. Referral to a registered healthcare practitioner must occur if there are any doubts associated with teaching opportunities.

Food that is contaminated with bacteria is one cause of acute gastritis, therefore, food safety measures should be promoted:

- Wash hands prior to any food preparation
- Work tops and chopping boards should be clean, spilt food should be wiped up immediately
- Wash work tops when changing from preparing raw

food to cooked food

- Egg products and meat should be fully cooked, fully cooked food should be steaming hot all the way through
- Food should be promptly refrigerated to prevent bacterial growth
- Store food in the correct manner in the refrigerator, avoiding any contact between raw and cooked foods.

Encourage people to reduce or abstain from smoking (referral to a smoking cessation programme may be appropriate) or excessive consumption of alcohol and to avoid any gastric irritants such as aspirin or certain foods.

It is important to remind the person to take their medications as prescribed even when pain or discomfort is resolved in the early part of the course of therapy. They should be encouraged to report any adverse responses to medications, for example, confusion, rash or vomiting to their practice nurse or general practitioner.

Conclusion

Gastritis is a common condition affecting both sexes equally. The HCA or AP will encounter people they provide care for in a variety of settings. The key aspect of care is to enhance health and wellbeing by providing appropriate physical and emotional support. In order to do this effectively the HCA or AP must have an understanding of the gastrointestinal tract and the key issues related to this common condition.

One key aspect of the HCA or APs role is to provide teaching opportunities. This article has outlined some examples of the health education opportunities the HCA or AP may become involved in.

BHCA

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