

## Gastrointestinal Bleeding

### Oral presentation of GIT disorders

### Effect of GIT disorders in oral and dental health

### Special consideration to patient with GIT bleeding

#### Upper gastrointestinal haemorrhage:

Haematemesis is vomiting of blood. Its red with clots when bleeding is rapid and profuse, or black ('coffee grounds') when less severe.

Melaena is the passage of black, tarry stools containing altered blood.

Severe acute upper gastrointestinal bleeding can sometimes cause maroon or bright red stool.

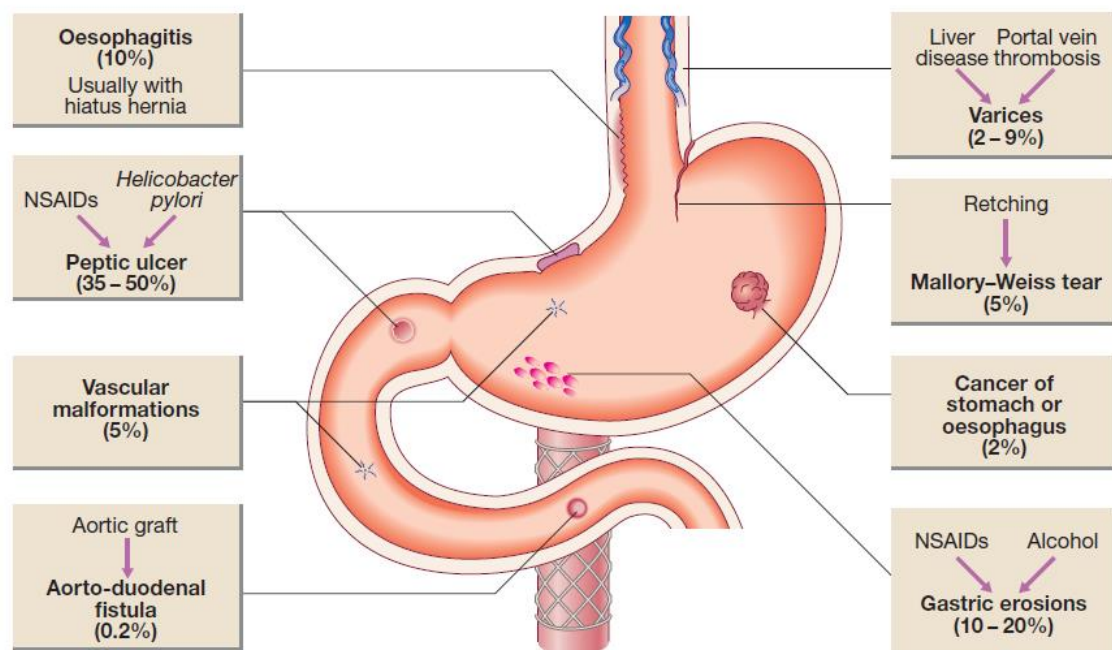


Fig. 21.19 Causes of acute upper gastrointestinal haemorrhage. Frequency is given in parentheses. (NSAIDs = non-steroidal anti-inflammatory drugs)

**Lower gastrointestinal bleeding**

This may be caused by haemorrhage from the colon, anal canal or small bowel.

**Chronic occult gastrointestinal bleeding:**

In this context, occult means that blood or its breakdown products are present in the stool but cannot be seen by the naked eye.

Occult bleeding may reach 200 mL per day and cause iron deficiency anaemia. Any cause of gastrointestinal bleeding may be responsible but the most important is colorectal cancer.

**Oral manifestations of GIT disorders:**

It is well known that a considerable number of systemic diseases can affect the oral cavity. Among these are the gastrointestinal disorders (GIDs), which have a high worldwide prevalence and a growing incidence. Although gastrointestinal signs and symptoms are predominant, oral manifestations may occur and even herald the onset of the underlying GID.

**Inflammatory bowel diseases**

The term inflammatory bowel disease (IBD) involves a group of chronic inflammatory disorders of not well known etiology that affects different portions of the gastrointestinal tract, mainly the bowels. The two main forms of IBD are Crohn's disease (CD) and Ulcerative Colitis (UC).

**Oral manifestations:**

- Oral lesions in CD are more frequent in young male patients.
- The pre-dominant clinical presentation of the oral lesions includes:

Ulcers, papules and edema.

- The most common sites affected are lips, gingiva and the vestibular sulci.
- Patients with active CD have been reported to have a higher degree of oral lesions.

- Different types of oral lesions can coexist in the same patient, and according to the absence or presence of granulomas formation in the histopathological study, these are classified into specific and non-specific lesions respectively.

### **Specific oral lesions:**

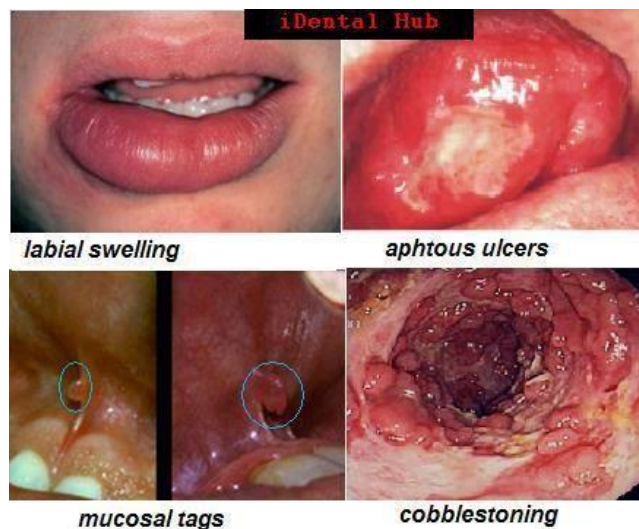
Labial swelling and fissuring: Consist in a chronic enlargement of the lips with perpendicular fissures, cracks or crusts along the vermilion.

Mucosal tags: Also known as epithelial tags or folds. Consist in white or normal color reticular tags often present in the vestibule and retro-molar region.

Cobblestoning: The yugal mucosa exhibits normal color plaques separated by mild depressions or fissures, giving the appearance of cobblestones. In some circumstances, these lesions can difficult normal function, such as chewing.

Mucogingivitis: The gingival tissues may become hyperplastic and granular.

Linear ulcerations: These lesions are usually located in the buccal sulci and may be accompanied by hyperplastic mucosa at their borders.



### Non-specific oral manifestations:

Recurrent aphthous stomatitis (RAS) like ulceration: It is one of the more prevalent lesions among patients with CD, being reported in up to 27% of all CD cases. Clinically, RAS like oral ulceration present as recurrent bouts of usually multiple, round or ovoid superficial ulcers that have circumscribed margins surrounded by an erythematous halo. In contrast to the intestinal ulcers, they have no clinical significance. It is important to highlight that RAS like lesions are not specific of CD, hence they are present in several disorders (e.g. AIDS, celiac disease, Behcet's syndrome, anemia).

Angular cheilitis: The commissure and adjacent skin may have recurrent fissures and indurated erythematous plaques not necessarily related with candida infection.



Pyostomatitis vegetans

Pyostomatitis vegetans: it is more frequent in patients with ulcerative colitis, and unlike the majority of the oral lesions, it has been reported to be a specific marker of the disease activity. PV is cataloged as a chronic mucocutaneous pathology that consists in the formation of numerous pustules (intra and sub epithelial abscesses) of white-yellowish content with an erythematous and edematous base.

## Treatment

The treatment of IBD is focused in the control of the underlying intestinal involvement. Treatment is usually performed by drug administration (steroids, immunosuppressive and/or biological agents), although some cases are managed surgically. Usually oral lesions are well managed with topical steroids, but the use of systemic agents might be necessary for some cases.

## Celiac disease

Celiac disease (CD) is an autoimmune disease in which genetically predisposed individuals exhibit damages in the small intestine villi as a consequence of an abnormal immune response subsequent to the ingestion of gluten.

## Oral Manifestations

Different oral manifestations associated with CD, which are particularly important, considering that 50% of the patients with CD do not exhibit digestive symptoms at the time of diagnosis.

Dental enamel defects: Patients with CD show increased risk for enamel developmental abnormalities, specifically enamel hypoplasia. In the temporal dentition the most affected teeth are second molars, while in the permanent teeth the central incisors are most commonly affected generally, enamel hypoplasia is distributed bilaterally and symmetrically in both dental arches.



Atrophic glossitis and glossodynia: Even though depapillation and tongue burning sensation have been described as oral repercussions of CD, these manifestations are less common compared to other oral signs and symptoms.



Salivary flow and saliva composition: A decrease in salivary flow rates have been reported to be associated with the active phase of the disease, resulting in a dry mouth and burning sensation of the tongue.

Bleeding tendency: Celiac disease has been associated with alterations in coagulation, which would facilitate the onset of bleeding in the affected patients (e.g. epistaxis and skin bleeding). This coagulopathy is the result of abnormalities in prothrombin caused by poor absorption of vitamin K.

### **Treatment**

The treatment of CD consists in the elimination of gluten from diet (e.g. cereals, such as wheat, rye and barley) which is effective in the remission of signs and symptoms, including those present in the oral cavity.

### **Gastroesophageal reflux disease**

Gastroesophageal reflux (GER) is considered a normal physiological event of the human body. This natural process involves the regurgitation of gastric contents into the esophagus, which is then removed and neutralized by several protecting factors (e.g. esophageal peristalsis and saliva). Other organs can also be affected, such as the pharynx, larynx, respiratory system and the oral cavity. When this happens, it is known as extra esophageal syndrome. GERD classical symptoms are heartburn and sour taste, but dysphagia, sore throat, odynophagia, globus sensation and nausea are also commonly reported.

## Oral manifestations

**Dental erosion:** Is one of the most common extra-esophageal manifestations. Up to 44% of GERD patients present dental erosions within the course of the disease. It usually affects the lingual or palatal surface of the anterior teeth. The severity can be variable, with most cases showing only a mild loss of enamel, while others can have a severe exposure of dentin.

**Xerostomia:** It is likely that xerostomia appears as an adverse side effect of the medication taken for treating GERD, rather than being cause by GERD itself. Proton pump inhibitors are the first drug of choice and are likely to cause dry mouth sensation.

**Halitosis:** Even though the main determinants of halitosis or bad breath correspond to the patient's oral conditions (e.g. periodontal problems or tongue coating), an increased risk of halitosis has been reported in in cases of symptomatic GERD. This was explained by a diminished function of the lower esophageal sphincter, which would facilitate flow of gases and gastric contents into the esophagus, producing the characteristic bad smell.

**Mucositis:** It might appear due the contact of the acids or its vapors with the oral mucosa. The oral mucosa is observed erythematous, generally on the palate and uvula, and the patient may complaint of burning sensation and/or pain. In some cases, the damage can be only microscopic, so no clinical signs can be seen (but the patient may still accuse some symptoms, such as burning sensation).

**Others:** It has also been reported a higher incidence of RAS like ulceration, sour taste and burning mouth. RAS like ulcerations are likely to be secondary to anemia or iron deficiencies, which are not uncommon among these patients.

## Treatment

The use of proton pump inhibitors is the treatment of choice. It provides the advantage of being non-invasive, cost effective and can serve as a diagnostic

criterion for GERD. In some cases, drug therapy is not sufficient to control the symptoms, so an anti-reflux surgery can be considered

**Special consideration to patients with GIT bleeding:**

- Following treatment for ulcer bleeding, all patients should avoid non-steroidal anti-inflammatory drugs (NSAIDs) and those who test positive for H. pylori infection should receive eradication therapy.
- Some patient with IBD experience flare of intestinal symptoms with NSAIDs
- History and physical examination should be focus to exclude any evidences of bleeding disorders.