

Upper gastrointestinal bleeding in children

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INTRODUCTION

- Upper gastrointestinal (UGI) bleeding : arising proximal to the ligament of Treitz in the distal duodenum, commonly presents with hematemesis and/or melena.
- The incidence : not well established in children, # 20 % of all episodes of gastrointestinal bleeding in children.
- The most common causes of UGI in children vary depending upon age
- The most common cause of severe UGI bleeding in children : Variceal rupture & ulcer bleeding

Approach to upper gastrointestinal bleeding in children

- The initial evaluation : assessment of hemodynamic stability & the necessity for fluid resuscitation
- Nasogastric or orogastric lavage : performed in pts with clinically significant UGI bleeding. Lavage using ice water is not recommended

Resuscitation

Ulcer bleeding

Blood transfusions should be administered to a patient with a hemoglobin level of 7g/dL or less (IC)

Active variceal hemorrhage

- Acute GI hemorrhage in a patient with cirrhosis, blood transfusions to maintain a hemoglobin of 8g/dL (IB)

Pharmacologic Management

Ulcer bleeding

- Preendoscopic PPI therapy may be considered to downstage the endoscopic lesion & decrease the need for endoscopic intervention but should not delay endoscopy (1B)
- An intravenous bolus followed by continuous-infusion PPI therapy should be used to decrease rebleeding and mortality in patients with high-risk stigmata who have undergone successful endoscopic therapy (IA)

Active variceal hemorrhage

- Somatostatin or its analogues..should be initiated as soon as variceal hemorrhage is suspected and continued for 3-5 days after diagnosis is confirmed (IA)

Endoscopic Management

Upper endoscopy should be performed : acute severe hemorrhage, low-grade persistent, recurrent hemorrhage

Ulcer bleeding

- Clips, thermocoagulation, or sclerosant injection should be used in patients with high-risk lesions, alone or in combination w epinephrine injection (1A)
- Routine second-look endoscopy is not recommended (IIB)

Variceal hemorrhage

- EGD, performed within 12 hours, should be used to make the diagnosis and to treat variceal hemorrhage, either with EVL or sclerotherapy (IA)

Ulcer bleeding

- Patients with bleeding peptic ulcers should be tested for *H. pylori* & receive eradication therapy if it is present, with confirmation of eradication (IA)
- Negative *H. pylori* diagnostic tests obtained in the acute setting should be repeated (IB)

Ulcer bleeding

Postdischarge, ASA & NSAIDs

- In patients with previous ulcer bleeding who require an NSAID, treatment with a traditional NSAID plus PPI or a COX-2 inhibitor alone is still associated with a clinically important risk for recurrent ulcer bleeding (IB)
- In patients with previous ulcer bleeding who require an NSAID, the combination of a PPI and a COX-2 inhibitor is recommended to reduce the risk for recurrent bleeding from that of COX-2 inhibitors alone (IB)

Variceal bleeding : Primary prophylaxis

- All patients with cirrhosis undergo diagnostic endoscopy to document the presence of varices & to determine their risk for variceal hemorrhage (IIB)
- In patients at high risk of variceal hemorrhage. Non selective beta-blockers (propranolol or nadolol) or EVL may be recommended for the prevention of first variceal hemorrhage (I A)
- In patients who have high risk varices & have potential contraindications to beta blockers or have been intolerant to beta blockers, we suggest EVL (I A)

Secondary prophylaxis

- Patients with cirrhosis who survive an episode of active variceal hemorrhage should receive therapy to prevent recurrence of variceal hemorrhage (secondary prophylaxis) (IA)
- Combination of non selective –beta blockers plus EVL is the best option for secondary prophylaxis of variceal hemorrhage (IA)
- TIPS should be considered in patients who are Child A or B who experience recurrent variceal hemorrhage despite combination pharmacological & endoscopic therapy (IA)
- Patients who are otherwise transplant candidates should be referred to a transplant center for evaluation(IC)

References

UPTODATE VERSION 19.1 (2011)

Approach to upper gastrointestinal bleeding in children

CLINICAL GUIDELINES (2011)

International Consensus Recommendations on the Management of Patients With Nonvariceal Upper Gastrointestinal Bleeding

AASLD PRACTICE GUIDELINES (2007)

Prevention and Management of Gastroesophageal Varices and Variceal Hemorrhage in Cirrhosis