SUMMARY

Diagnosis of acute mesenteric ischemia requires a high index of clinical suspicion and knowledge of risk factors including female preponderance, advanced age, concomitant cardiovascular disease including hypertension and atrial fibrillation.

Many of the signs and symptoms associated with AMI are common to other intra-abdominal pathologic conditions, it manifests as severe and unrelenting abdominal pain, nausea, vomiting, and urgent bowel evacuation. Classically, the severity of abdominal pain is out of proportion to the physical findings. In general, patients with SMA embolism or thrombosis have an acute onset of symptoms and a rapid deterioration in their clinical condition, whereas those with NOMI or MVT have a more gradual onset and a more protracted clinical course.

Leukocytosis 50% of cases found to have white blood cell count higher than 20,000/$mm^{3.}$ D-dimer has been found to increase within as little as 30 minutes from the onset of intestinal ischemia. D-lactate concentration exceeding 2.6 mmol/l is considered to have a high sensitivity (90–100%) for acute mesenteric ischemia.

Laparoscopy has become the standard tool used in acute abdominal cases, when laparoscopy done using UV light and fluorescein dye injection the viable intestines emitted a green-yellow luminescence, whereas the ischemic portions had a dark red-violet color.

abdominal radiographic films can neither establish nor exclude the diagnosis of acute mesenteric ischemia they may reveal edematous bowel with thumbprinting in severe cases, it may reveal gas in the bowel wall and the portal vein.

Duplex scanning is very operator dependent, and many facilities do not have vascular technologists readily available at all hours to perform such evaluations. Contrast angiography has long been considered the gold standard for imaging the visceral vessels, besides establishing the diagnosis, angiography is also helpful for separating the different etiologies for acute intestinal ischemia, embolization to the SMA appears as a "meniscus" occlusion located 5–7 cm out in the SMA, Arterial thrombosis an occlusion of the SMA is found approximately 1–2 cm from its origin.

The findings on the CT scan that indicate thrombosis are thrombus in the superior mesenteric vein and occasionally in the portal and splenic veins, gas bubbles in these veins may also be found.

Once the diagnosis of AMI is made, treatment should be initiated without delay, including Intravenous fluid resuscitation, Broadspectrum antibiotics, therapeutic intravenous heparin sodium should be administered, when angiography is used to establish the diagnosis, the angiographic catheter should be left in the SMA for infusions of papaverine the usual dose is 30 to 60 mg/h.

Tretment of embolic acute mesenteric ischemia is embolectomy. which is the main stay in treatment. if failed arterial bypass has to be done. Mesenteric bypass may be antegrade or retrograde the advantages of antegrade bypass include a straight graft configuration that minimizes turbulence and graft kinking and reduced atherosclerotic calcification in the supraceliac aorta. The advantages of retrograde bypass include that the approach to the infrarenal aorta is more familiar to most surgeons; the dissection and clamping of the infrarenal aorta are less risky thedissection and clamping of the supraceliac aorta.

In clean cases with no intestinal necrosis or perforation, woven Dacron grafts is used; autologous vein grafts are usually reserved for contaminated cases, great saphenous vein is graft of choice, if absent or inadequate in caliber or quality arterial conduit may be used, some surgeons use superficial femoral vein .

Thrombolytic therapy may serve as an adjunctive treatment modality to surgery for acute superior mesenteric artery occlusion, thrombolysis is sometimes judged unfavorable in the literature, as such, prolonged infusion of the thrombolytic agent, while ischemia continues, may lead to bowel necrosis and decrease the chance of survival.

Urokinase dose demonstrated a large range, though most patients received a relatively high dose infusion protocol (from 100,000 U/h up to 600,000U/h), high dose of urokinase therapy resulted in revascularization in less than 3 hours.

Retrograde open mesenteric stenting (ROMS) is a hybrid technique, that combines open surgical and endovascular approaches, like traditional surgical bypass, this approach allows for an accurate assessment and treatment of any nonviable bowel during laparotomy at the same time, stenting of the superior mesenteric artery (SMA) is performed to revascularize the viscera.

Treatment of MVT is somewhat controversial and depends on the extent of intestinal ischemia; many are treated with anticoagulation alone, possible routes of treatment include indirect intrarterial infusion of thrombolytics through the superior mesenteric artery and direct access to the portal vein with transjugular or transhepatic routes, mechanical thrombectomy is a promising new technique for the treatment of acute

MVT, especially in patients at high risk for pharmacologic thrombolytic therapy.

Management of NOMI is largely nonoperative; treatment of the underlying precipitating cause is the key therapeutic intervention, Selective catheterization of the SMA with direct intra-arterial infusion of papaverine (30 to 60 mg/hr) may be employed as adjunctive therapy.

Following reperfusion, the intestinal tract is then reexamined, and any segments of infarcted intestine are resected. the decision to perform a second-look laparotomy is made at the time of the initial inspection and is typically performed 24 to 48 hours later.

Short bowel syndrome is the most serious post operative complication

Conclusion