

### SUMMARY

- Mesenteric ischemia is a medical emergency with high mortality.
- Early diagnosis, involvement of vascular surgeons, aggressive surgical / endovascular interventions, nutritional supplementation and better perioperative care has significantly reduced death rates in Indian patients.
- Surgical revascularization remains the treatment of choice for mesenteric ischemia related to occlusion of blood vessels supplying bowel, but thrombolysis and vascular interventional techniques have a growing role.



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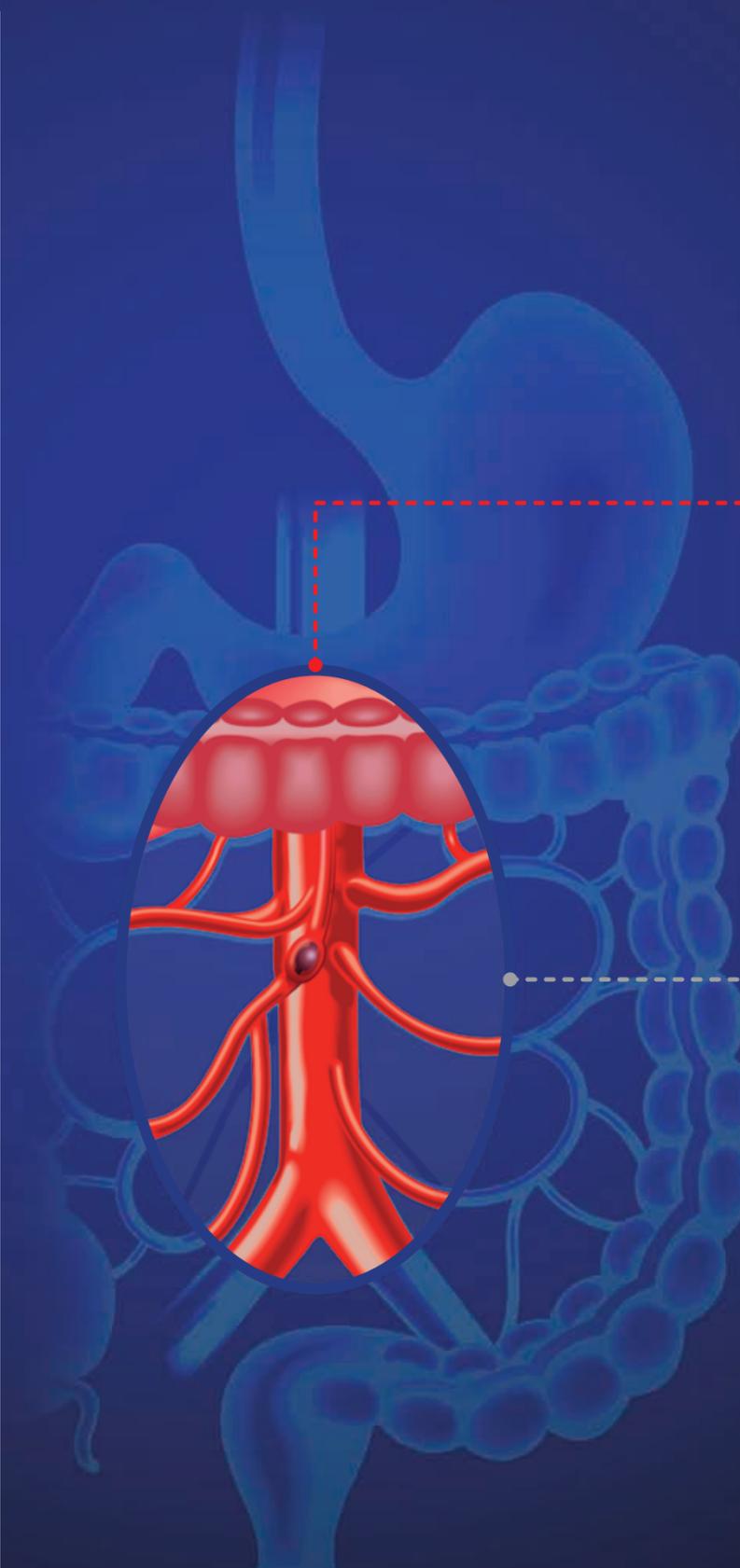
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# MESENTERIC ISCHEMIA: GUT ATTACK



FOR PATIENT INFORMATION / EDUCATIONAL PURPOSES



# MESENTERIC ISCHEMIA

## INTRODUCTION

**Mesenteric Ischemia** can be considered as an attack on your gut (stomach and intestines) similar to a heart attack.

It is a disease with blood clot (thrombus) formation and severe narrowing in arteries of stomach and intestines leading to a sudden reduction in gut blood circulation and death of the stomach/intestinal cells.

In India, mesenteric ischemia patients are at least a decade younger than those in the western countries, with overall higher complications & death rate.

## IS IT A SERIOUS PROBLEM?

Yes. It is an emergency condition and you must see a qualified vascular surgeon immediately.

## WHY DOES IT HAPPEN?

Mainly two reasons:

1. Clot, pushed out of the heart towards arteries of gut (seen in patients with pre-existing heart problems)
2. Fresh clot formation at areas of partial blockage (in pre-existing diseased patients)

## THE RISK FACTORS

- Age >50 years
- Smoking or tobacco chewing (Any age group)
- Diabetes Mellitus
- High blood pressure
- High blood cholesterol levels/Obesity
- Pre-existing heart disease/valvular heart disease
- Those with blood clotting tendencies

## WHAT ARE THE SYMPTOMS?

- Severe abdominal pain (often abdominal sonography is normal)
- Pain worsening after consuming food
- Food fear and weight loss

## WHAT IF I NEGLECT IT?

It is a condition similar to heart attack.

If blood vessel remains blocked for prolonged period of time, blackening of intestines can develop, which is called '**gangrene**'. You may end up losing your intestines, which can be life threatening.

To avoid major intestine removal surgery, it is better to consult a vascular surgeon as soon as possible.

## HOW IS THE DIAGNOSIS CONFIRMED?

Consult a Vascular surgeon for clinical assessment.

The doctor will advise a **computed tomography (CT)** of your abdomen and will explain you further course of treatment.

## TREATMENT OPTIONS

**Initial Resuscitation and Critical Care:**

- Fluid and electrolyte correction
- Antibiotics
- Anticoagulation
- Optimization of vitals

Surgery is required for patients with evidence of any threatened bowel, regardless of the underlying cause.

If bowel is not viable/gangrenous, surgeon will remove that segment of bowel before revascularization.

## HOW WILL THE VASCULAR SURGEON REESTABLISH BLOOD FLOW TO THE INTESTINE?

**1. Urgent thrombolysis (clot-dissolving procedure)** - Restoration of flow must be accomplished within few hours to prevent bowel necrosis and death. Catheter-guided thrombolysis or percutaneous mechanical thrombectomy are the recent advances in endovascular treatment of mesenteric ischemia. This minimally invasive approach lyses/removes the blood clot in emergency situation and hence proves to be a life-saving procedure.

**2. Vascular stenting of mesenteric arteries-** Angioplasty and stenting are well established for sub-acute/chronic presentations, especially in patients at high operative risk or as a bridge to elective surgical bypass after the acute illness has resolved.

**3. Vascular bypass of mesenteric arteries-** More commonly done for acute or chronic occlusion of mesenteric arteries. During a mesenteric artery bypass, a vein or prosthetic bypass is grafted (sewed) onto your aorta and then onto the mesenteric artery, creating an alternate route for blood to flow to the intestines.



Figure 1: Angiography depicting SMA stenosis



Figure 2: Vascular Bypass