



Angiodysplasia of the GI Tract

Overview

"Angiodysplasia" is a term in medicine that describes abnormal blood vessels. There are various other names by which these can be defined, for example, "angioectasia," "AVMs," or "arteriovenous malformations."

These abnormal blood vessels can form in various organs; however, they are specifically referred to as angiodysplasia of the GI tract when they occur in the gastrointestinal tract. Angiodysplasia can lead to intermittent bleeding, manifest as iron deficiency anemia or low blood counts, and sometimes as visible bleeding from the GI tract.

These mainly occur in older patients and people with certain conditions.

Causes

The cause of this condition is not well understood.

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One proposed explanation is that these develop due to intermittent blockage of small blood vessels called the veins in the muscle wall of the intestines. Over time this intermittent blockage results in stretching of these tiny blood vessels leading to dilation and twisting. This mechanism occurs in areas where the tension in the intestine wall is high compared to other sites.

Sometimes they can also develop due to the valve mechanism failing and these tiny blood vessels called capillaries.

This condition can develop in a narrowed heart valve called aortic stenosis due to the disruption of von Willebrand multimers passing through a narrowed valve opening. The sequence of events that are triggers downstream causes bleeding.

Symptoms

Symptoms for this condition in the GI tract depend on whether these lesions bleed and how much they bleed.

If these vessels do not bleed, then people will not have any symptoms. However, they could still find out about this condition when their doctor performs another test for another reason.

If these abnormal blood vessels bleed, they can bleed slowly and intermittently over months or years. Sometimes, people may not realize they are bleeding, but this might manifest as iron deficiency anemia (low blood counts).

Rarely these blood vessels can bleed, and the patient can see bloody or black tarry bowel movements.

When people develop anemia slowly or rapidly due to bleeding from these abnormal vessels, people can feel tired or weak. Many times this will be the most common presenting symptom.

Risk Factors

Some of the risk factors associated with angiodysplasia of the GI tract include:

- chronic kidney disease,
- aortic stenosis,
- von Willebrand disease,
- left ventricular assist devices.

Diagnostic Testing

When you have bleeding or anemia (low blood counts), your doctor will order specific tests to check for this condition. The test is dependent on what kind of area of your GI tract the doctor suspects is bleeding.

1. An upper endoscopy: During this procedure, your doctor can look with a camera inside your food pipe, stomach, and the first part of your small intestine. Generally, the patient receives sedative medication. Then, a thin tube with a camera and light is inserted from the mouth into the food pipe, advanced into the stomach, and the first part of the intestine called the duodenum. It can find out if there are these blood vessels and treat them.
2. A colonoscopy: This procedure helps your doctor look inside your large intestine. A camera is passed from your bottom into the large intestine during the test while you are sedated. These lesions can be found out this way and treated if needed.
3. A capsule endoscopy: This test uses a small camera about the size of a pill to look inside your intestinal tract. You will swallow this camera in the office, and pictures are sent to a recorder that the patient wears during this test. After the investigation, the camera leaves your body in a bowel movement and does not have to be retrieved. It can help find these angiodysplasias or areas of bleeding.
4. A CT scan: This is an imaging test that can create pictures of the inside of her body. Typically you will get an IV line during this test to inject "contrast material," which helps the doctor see abnormalities inside.

Treatment

Treatment is generally needed when these lesions cause bleeding and anemia or low blood counts.

Treatment generally involves a procedure to find and stop the bleeding blood vessel. These procedures are:

- Endoscopy and colonoscopy: To locate the lesions and treat them.
- Enteroscopy is like an upper endoscopy; however, the camera is passed further down into the intestine.
- Angiography: This procedure is like a CT scan to find and block the bleeding blood vessel,
- Surgery: Some people with a lot of bleeding might need surgery to remove a part of the intestine.

Other treatments

1. Iron Pills: People may also require iron supplementation, which can help bump up the iron level, improving blood levels.

2. Blood transfusion: This improves your blood counts in the event of bleeding. The process involves giving you blood donated by somebody else into a vein.

Important Points:

Angiodysplasia is an abnormal vessel that develops due to various reasons not wholly understood.

Angiodysplasia usually results in presentation as anemia or GI bleeding. Generally, this is not life-threatening; however, it can lead to heavy bleeding in rare circumstances.

Common risk factors include age, chronic kidney disease, aortic stenosis, von Willebrand disease, left ventricular assist devices.

Diagnostic tests include endoscopy, colonoscopy, capsule endoscopy, and CT scan.

Treatment includes endoscopic treatment or angiography or rarely surgery. Other therapies include iron pill supplementation, blood transfusion.

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