CONDITION

Angiodysplasia of the colon

Learn how fragile blood vessels in the colon can cause bleeding or anemia, how angiodysplasia is diagnosed, and which treatments may help.

WHAT IT IS
Enlarged fragile blood vessels in the colon lining

BODY SYSTEM
Digestive

MAIN SYMPTOMS
Painless rectal bleeding, maroon or black stools, tiredness, shortness of breath

WHAT CAUSES IT
Not fully understood

HOW IT IS DIAGNOSED
Colonoscopy

MAIN TREATMENT
Endoscopic bleeding control

CAN IT BE CURED?
Sometimes - treatment controls bleeding, recurrence possible

IS IT AN EMERGENCY?
Sometimes - heavy or continuing rectal bleeding

LONG-TERM OUTLOOK
Bleeding may stop but can recur

Overview

Angiodysplasia of the colon is a group of enlarged, fragile blood vessels in the lining of the large intestine. These vessels can break and bleed. The condition is also called colonic angioectasia.

Angiodysplasia is not cancer, an ulcer, or an inflammatory bowel disease. The abnormal vessels usually develop over time rather than being present at birth. They are most often found in the first part of the colon, especially the cecum and ascending colon on the right side. Some people have lesions in more than one area of the digestive tract.

Many angiodysplasias are discovered during a colonoscopy performed for another reason. An incidental lesion that has never bled usually does not need treatment. Angiodysplasia matters when it causes visible intestinal bleeding or slow blood loss that leads to iron-deficiency

anemia.

Bleeding may stop without treatment and then return later. Some people have only one episode, while others have repeated bleeding. The best management depends on whether bleeding is active, how much blood has been lost, whether anemia is present, and the person's other health conditions.

Symptoms

Angiodysplasia often causes no symptoms. When bleeding occurs, it is commonly painless.

Visible bleeding may appear as bright red or dark red blood from the rectum. Stools may look maroon. Blood from the right side of the colon can occasionally produce very dark or black, tar-like stool, although bleeding elsewhere in the digestive tract can cause the same appearance.

Slow bleeding may not be visible. Over time, blood loss can reduce the body's iron supply and cause anemia, meaning there are not enough healthy red blood cells to carry oxygen. Possible symptoms include:

These symptoms have many possible causes and do not confirm angiodysplasia.

Arrange routine medical care for recurring blood in the stool, unexplained fatigue, or possible anemia. Do not assume rectal bleeding comes from angiodysplasia or hemorrhoids. Other causes, including polyps, diverticular bleeding, inflammation, and colorectal cancer, may need to be excluded.

Seek emergency care for heavy or continuing rectal bleeding, fainting, confusion, severe weakness, chest pain, difficulty breathing, or signs of shock such as cold, clammy skin and a rapid heartbeat. Call emergency services rather than driving if you might faint or are seriously unwell.

- Tiredness or reduced stamina
- Shortness of breath during usual activity
- Dizziness or lightheadedness
- Headaches
- Pale skin
- A fast or noticeable heartbeat

Causes and risk factors

The exact reason angiodysplasia develops is not fully understood. One explanation is that repeated muscle contractions in the colon intermittently compress small veins in the bowel wall. Over many years, this may cause vessels to widen and form fragile connections between small arteries and veins.

Age is the main recognized risk factor. Angiodysplasia is more often identified in older adults, although it can occur at other ages.

Several health conditions are associated with gastrointestinal angiodysplasia or a greater chance of bleeding from it. These include chronic kidney disease, certain blood-clotting disorders, and aortic stenosis, which is narrowing of the heart's aortic valve. These associations do not mean that everyone with one of these conditions will develop angiodysplasia.

The combination of aortic stenosis and bleeding from intestinal angiodysplasia is sometimes called Heyde syndrome. Severe aortic stenosis can affect a blood protein called von Willebrand factor, which helps platelets stick together and stop bleeding. A clinician may consider this connection when intestinal bleeding occurs in someone with a heart murmur or known valve disease.

Anticoagulants like warfarin or apixaban , sometimes called blood thinners, and antiplatelet medicines do not necessarily create the abnormal vessels. However, they may make bleeding more likely or more difficult to stop. Examples include medicines used to prevent stroke, heart attack, or blood clots. Nonsteroidal anti-inflammatory drugs, such as ibuprofen and naproxen, may also contribute to gastrointestinal bleeding.

Do not stop a prescribed anticoagulant or antiplatelet medicine on your own. Suddenly stopping it can increase the risk of a stroke, heart attack, or dangerous blood clot. A clinician should weigh the bleeding risk against the reason the medicine was prescribed.

Diagnosis

Diagnosis begins with a review of symptoms, previous bleeding, medical conditions, and medicines. The clinician may ask about stool color, the amount and timing of bleeding, abdominal symptoms, heart disease, kidney disease, and any history of anemia.

Blood tests can check the red blood cell count and hemoglobin level. Iron studies, including ferritin, help determine whether ongoing or previous blood loss has caused iron deficiency. Other tests may assess kidney function and blood clotting.

Colonoscopy is the main test used to identify angiodysplasia in the colon. A flexible camera is

passed through the rectum after the colon has been cleaned with bowel preparation. Angiodysplasias often appear as flat or slightly raised areas made up of small, bright red, branching blood vessels. Colonoscopy also allows the doctor to look for other possible sources of bleeding and, in many cases, treat a lesion during the same procedure.

A colonoscopy may not find the cause if bleeding has stopped, the bowel preparation is incomplete, or the lesions are small or hidden. Finding an angiodysplasia also does not prove that it caused the bleeding. The doctor considers whether the lesion has signs of recent bleeding and whether another explanation is more likely.

If bleeding is brisk or ongoing, computed tomography angiography, usually called CT angiography, can help locate active bleeding. This test uses intravenous contrast and rapid CT images to show blood escaping from a vessel. Catheter angiography may then be used to confirm and treat the source.

If colonoscopy does not explain suspected intestinal blood loss, an upper endoscopy may be needed to examine the esophagus, stomach, and first part of the small intestine. Capsule endoscopy, in which a person swallows a small camera, may be considered when bleeding could be coming from the small bowel.

A biopsy is usually unnecessary because angiodysplasia is recognized by its appearance. Taking a tissue sample may itself cause bleeding.

Treatment and management

An angiodysplasia found by chance generally does not require treatment if it has never bled and there is no unexplained anemia. Preventive treatment of every incidental lesion has not been shown to be necessary.

When bleeding or iron deficiency is present, care focuses on stabilizing the person, replacing lost blood or iron when needed, and controlling the bleeding source.

Iron replacement may be used for iron-deficiency anemia. Iron can be taken by mouth or given through a vein. The choice depends on the severity of the deficiency, how well oral iron is tolerated and absorbed, and whether blood loss is continuing. Blood transfusion may be needed for substantial blood loss, but the decision is based on symptoms, test results, active bleeding, and other health conditions.

During colonoscopy, the doctor may seal a bleeding angiodysplasia. Argon plasma coagulation is commonly used. It directs ionized argon gas and electrical energy onto the surface of the lesion to close the abnormal vessels. Other endoscopic methods include bipolar coagulation, heater treatment, clips, or combination therapy. The method depends on the lesion's location,

appearance, and the endoscopist's judgment.

Endoscopic treatment often controls the immediate problem, but bleeding can return. A treated site may reopen, or another angiodysplasia may bleed later.

For severe active bleeding that cannot be controlled during colonoscopy, an interventional radiologist may perform angiography and embolization. A thin catheter is guided into the blood vessel supplying the bleeding area, and material is delivered to block that vessel. Embolization can be effective, but it carries a risk of reducing blood flow to healthy bowel tissue.

Surgery is generally reserved for ongoing or repeated serious bleeding when the source has been clearly located and less invasive treatments have failed or are not possible. The surgeon may remove the affected section of colon. Because angiodysplasia can occur in several locations, careful localization is important before surgery.

Specialists sometimes consider medicines for recurrent bleeding from multiple lesions that cannot be managed adequately with endoscopy. Somatostatin analogues, such as octreotide, may reduce bleeding in selected patients. Thalidomide has also been studied for recurrent angiodysplasia-related bleeding, but it can cause serious adverse effects and requires strict specialist supervision. These medicines are not routine treatment for every person with colonic angiodysplasia.

Management may also involve reviewing medicines that increase bleeding. Any changes to anticoagulants, antiplatelet drugs, or anti-inflammatory medicines should be coordinated with the clinicians managing the conditions for which they are used.

Complications

The main complication is recurrent blood loss. Slow bleeding can lead to iron-deficiency anemia, while heavier bleeding can cause low blood pressure, fainting, or a need for transfusion.

Repeated episodes may require more than one colonoscopy or other procedure. Ongoing anemia can limit exercise and worsen symptoms of heart or lung disease.

Procedures also have risks. Endoscopic heat treatment can occasionally cause delayed bleeding, a burn to the bowel wall, or a perforation, which is a hole in the colon. Embolization can rarely injure bowel tissue by limiting its blood supply. A care team considers these risks against the effects of continued bleeding.

Follow up

Follow-up is based on whether the angiodysplasia caused bleeding and whether anemia has resolved. A clinician may repeat a complete blood count and iron studies after treatment or iron replacement. Improvement in energy can take time even after bleeding stops.

Keep track of visible blood, stool color, dizziness, shortness of breath, and changes in exercise tolerance. Tell the care team if symptoms return. Recurrent bleeding does not always mean the previous treatment failed; another lesion may be responsible.

Routine repeat colonoscopy solely to inspect a successfully treated lesion is not always needed. The timing of any further endoscopy depends on symptoms, blood-test results, the quality of the original examination, and usual colorectal cancer screening needs.

Seek prompt medical advice for new or recurring blood in the stool or symptoms suggesting anemia. Seek emergency care for heavy bleeding, fainting, chest pain, severe breathing difficulty, confusion, or marked weakness.

Sources

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