CENTER FOR DIGESTIVE HEALTH & NUTRITION
725 CHERRINGTON PARKWAY • MOON TOWNSHIP, PA 15108

Gastric Antral Vascular Ectasia (G.A.V.E.)

What is Gastric Antral Vascular Ectasia?

G.A.V.E. is a medical condition that affects the stomach. It gets its nickname, "watermelon stomach," from the characteristic streaky red lines on the stomach's lining, which can resemble the stripes on a watermelon. These lines are dilated small blood vessels. While it may not sound serious, these vessels can lead to chronic, silent bleeding in the digestive tract, which can greatly impact your health. This bleeding can lead to a significant drop in your blood count or anemia, particularly iron deficiency anemia.

Who is at risk?

While G.A.V.E. can occur in anyone, it most commonly affects older adults, with a higher prevalence in women over the age of 70. Several underlying conditions may increase the risk of developing GAVE, including liver diseases like cirrhosis, kidney diseases, autoimmune disorders, and heart conditions. However, most individuals have no specific risk factors. It's just bad luck.

No overt symptoms

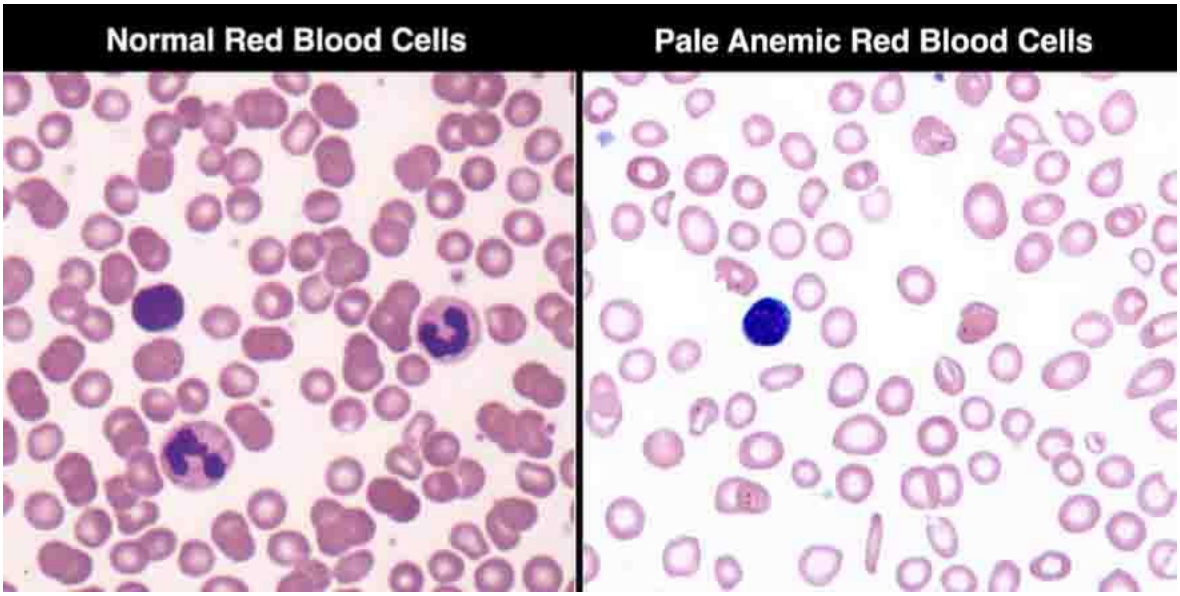
G.A.V.E. does not usually cause any visible loss of blood or abdominal pain. It often reveals itself through signs that you might be anemic, such as paleness, weakness, easy fatigue, and shortness of breath. Often, routine blood tests surprisingly reveal significant anemia due to iron deficiency.

Iron Deficiency Anemia

Red blood cells (RBCs) are produced in the bone marrow and make up most of the cells in your blood. As your blood constantly circulates, these red blood cells act like "oxygen delivery boys," picking up a load of oxygen as they travel through your lungs and dropping off the oxygen when they travel past the cells.

Red blood cells excel at oxygen delivery because they are made of a special red-colored pigment called hemoglobin, which selectively grabs oxygen molecules. Each red blood cell contains several hundred hemoglobin molecules. Hemoglobin is mostly made of iron, a natural mineral. Just like a factory needs steel to make cars, your bone marrow needs iron to

create hemoglobin and new red blood cells. But you need just the right amount. When you lose blood, you are “twice damned,” as not only did you lose the blood, but you also lost the iron necessary to make new blood. When iron levels are too low, hemoglobin production drops and fewer red blood cells are created.



When the number of red blood cells falls below normal, this is called anemia. There are many types of anemia, but anemia due to insufficient iron is, of course, called iron deficiency anemia. It has nothing to do with leukemia or cancer of the bone marrow. Iron deficiency anemia is universally the most common form of anemia.

When you have G.A.V.E., persistent blood loss, even in small amounts, can lead to iron deficiency anemia. Iron is like fuel for producing red blood cells in your body. When G.A.V.E. causes bleeding, it's like a slow leak in your tank, leading to less fuel for red blood cell production. This type of anemia is characterized by fatigue, weakness, and sometimes shortness of breath because your body doesn't have enough iron to make hemoglobin—the oxygen-carrying component of your blood. It's like running a marathon with half the required water supply; you'll feel exhausted.

Making the diagnosis

When anemia is suspected, your doctor will likely order blood tests to check your blood hemoglobin level. This blood test is called a complete blood count, or CBC. Blood iron levels are also checked. One common way to estimate the number of red blood cells is to measure the amount of hemoglobin present in the blood, expressed in grams of hemoglobin per 100 cc of blood. A low hemoglobin level is another sign of anemia. Men with hemoglobin measurements less than 14 and less than 12 for women are considered anemic. There are many causes of iron

deficiency anemia, such as pregnancy, heavy menstrual periods, ulcers, stomach cancer, and colorectal cancer, all of which have to be excluded. G.A.V.E. is an uncommon one.

Diagnosing G.A.V.E.
Upper endoscopy is the tool of choice to diagnose G.A.V.E., allowing doctors to see the characteristic watermelon stripes. This painless, sedated procedure involves using a flexible tube with a camera to view the inside of your stomach. It's the only way to spot those telltale watermelon stripes, which are not visible through imaging studies such as CT scans or MRIs.

What is the Treatment Plan?
Once the diagnosis of G.A.V.E. with iron deficiency anemia has been made, there are four primary goals:

1. Correct the Iron Deficiency Anemia
2. Stop or Decrease Blood Loss.
3. Avoid Aggravating Factors
4. Monitor the Condition

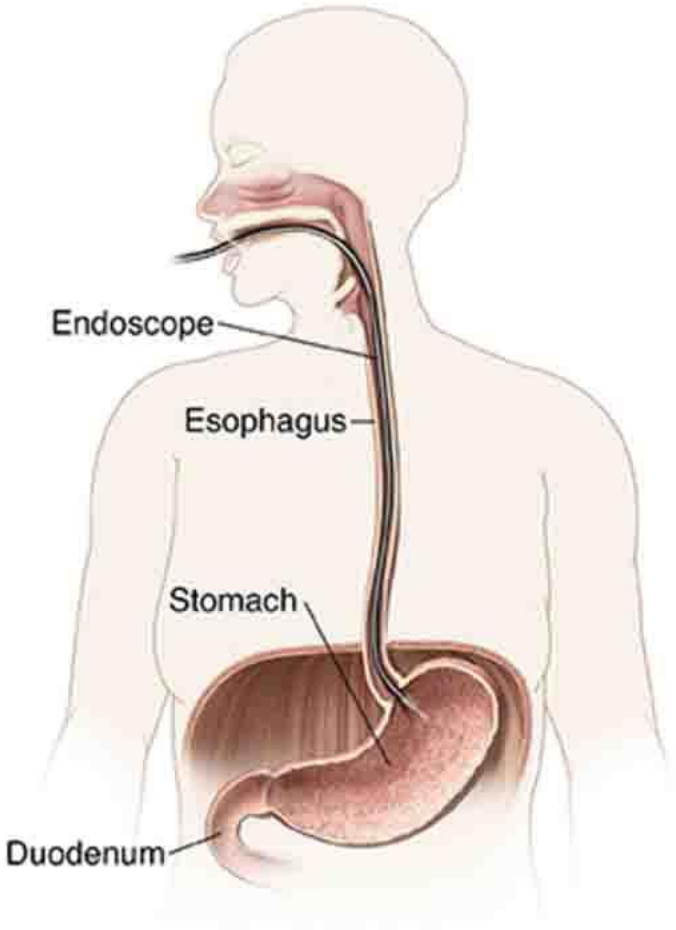
First, Correct the anemia.
You must correct the low blood iron to allow the bone marrow to make new red blood cells. Iron can be replaced orally with dietary changes and iron supplements, which may be sufficient for mild anemia. Iron infusions come into play when dietary changes or oral iron supplements don't cut it, or your stomach can't tolerate them. Oral iron supplements often cause nausea and constipation. Iron infusions involve receiving iron directly into the bloodstream through a vein. They can quickly replenish your iron levels, restoring your energy and color, much like a wilted plant coming back to life with good watering. Usually, several infusions are given over a few weeks.

Stop the Chronic Blood Loss
Treating G.A.V.E. depends on the severity of your symptoms and bleeding. Argon Plasma Coagulation (APC) is a common and effective treatment. It uses electrically charged argon gas to stop the bleeding in the stomach. Other treatments can include laser therapy, medications like corticosteroids or hormone therapy, and, in more severe cases, surgery. Your doctor will discuss the best option for you.

A Bright Spark in Treatment: Argon Plasma Coagulation
To address the root cause of the anemia, we need to stop the bleeding. That's where Argon Plasma Coagulation (APC) shines. In this procedure, argon gas is used to generate a plasma

stream that's directed through an endoscope to cauterize the bleeding vessels in the stomach. Think of it as precise spot welding to seal off the troublesome areas. It's a minimally invasive approach that has become a first-line treatment due to its efficacy and safety. APC is often preferred because it allows targeted treatment with minimal damage to the surrounding tissues. This reduces the risk of more common complications with other, more invasive procedures. To achieve the best results, patients typically undergo a series of treatments spaced out over time.

.



APC is performed during an endoscopy, so you'll be sedated and comfortable. The procedure is quick but requires precision. Your doctor will pass the endoscope down to your stomach and then use the argon plasma coagulator to carefully apply heat to the bleeding areas. Most people can go home the same day, but due to the sedation, you'll need someone to drive you.

Avoid Aggravating Factors.

Any medication that worsens blood loss, such as aspirin and NSAIDs (Non-Steroidal Anti-Inflammatory Drugs), should be avoided. These over-the-counter medications include Aleve, Naproxen, Advil, Motrin, and Ibuprofen. Tylenol is safe up to 2000 mg per day and won't worsen bleeding. Of course, prescription anticoagulants or “blood thinners” are a real problem in this circumstance, but they often cannot be discontinued for medical reasons. Some common anticoagulants are Plavix, (clopidogrel) Coumadin (warfarin), Xarelto (rivaroxban), and Eliquis (apixaban).

Monitor the Condition

Your journey with G.A.V.E. doesn't end with treating anemia or sealing blood vessels. It's about comprehensive care. G.A.V.E. can be a persistent condition that may require ongoing management. After the procedure, your doctor will likely recommend periodic follow-up endoscopy exams to ensure the effectiveness of treatments and check for recurrence. They'll

also continue to monitor your hemoglobin and iron levels and overall health to ensure a full recovery.

Conclusion

While G.A.V.E. can be a concerning diagnosis, armed with the right information and an experienced healthcare team, you can successfully navigate this condition. By understanding the link between the bleeding caused by G.A.V.E. and iron deficiency anemia and knowing the effective treatments available, such as iron infusions and APC, you can take control of your digestive health and overall well-being.

Robert Fusco MD
April 2024

Check out this VIDEO

Center For Digestive Health & Nutrition

725 Cherrington Parkway • Moon Township, PA 15108
412.262.1000 • www.gihealth.com • IG: @thedigestivetract

The Center for Digestive Health & Nutrition is a private medical practice comprised of experienced Gastroenterologists, Nurse Practitioners, and staff members dedicated to preventing and treating digestive disorders. Our physicians have been serving the needs of those in Western Pennsylvania and surrounding areas since 1977, having cared for tens of thousands of individuals with digestive problems. Our mission is to deliver high-quality gastroenterology services efficiently and cost-consciously. We realize the very sensitive nature of GI illness and understand the necessity to provide our services in an environment that stresses patient privacy and confidentiality and where patient satisfaction is the goal. Appointments can be conveniently scheduled online via our website above. Learn more about digestive issues on Instagram @thedigestivetract