

Ulcerative Colitis

What Is It?

A number of infections and other conditions can cause the rectum to become irritated and inflamed, but few of them cause lasting symptoms. Ulcerative colitis, however, is a lifelong condition that begins with rectal inflammation and can worsen to involve much or all of the large intestine. Ulcerative colitis most often begins to cause symptoms between the ages of 15 and 40.



Research suggests that ulcerative colitis is genetic. The illness may begin with a breakdown in the lining of the intestine. Normally, the lining of the intestines keeps bacteria that normally live in the colon carefully sealed within the digestive "pipeline." As long as the bacteria are perfectly contained, it remains invisible to the immune cells and does not provoke a reaction. When the intestine's lining fails, bacteria that usually are harmless can activate the immune system. Ulcerative colitis is an autoimmune disease, meaning that the immune system attacks part of the body. In ulcerative colitis, cells from the immune system collect in the bowel wall and cause inflammation, injuring the bowel. Once the bowel inflammation has started, it can continue, even if the immune system stops being exposed to the bowel bacteria.

Ulcerative colitis affects the inner lining of the rectum and colon, causing it to wear away in spots (leaving ulcers), and to bleed or to ooze cloudy mucus or pus. Sometimes, other parts of the body are affected by the inflammation, including the eyes, skin, liver, back and joints. One serious concern about ulcerative colitis is that it substantially increases the risk of colon cancer.

The disease is not contagious, even within families, so contact with another person cannot spread the disease.

Symptoms

The symptoms of ulcerative colitis vary. Some people with the disease have a burst of symptoms every few months. Others have symptoms either all the time or very rarely. Typical symptoms include:

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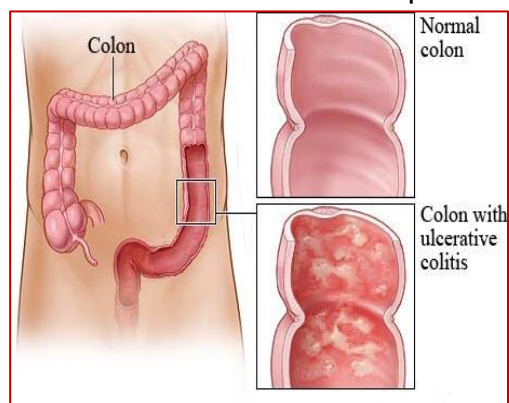
- Cramping abdominal pain, especially in the lower abdomen
- Bloody diarrhea, often containing pus or mucus
- A feeling that you have little warning before you need to have a bowel movement
- The need to wake from sleep to have bowel movements

Ulcerative colitis also may cause fever, fatigue, decreased appetite and weight loss. It also can lead to dehydration by causing you to lose fluids.

Diagnosis

To confirm a diagnosis of ulcerative colitis, most patients will need to have either flexible sigmoidoscopy or colonoscopy. Both procedures involve the use of a small movable camera and a light to view the insides of your large intestine. During either procedure, a biopsy may be done. In a biopsy, small samples of tissue are clipped from the lining of the intestine so that they can be examined under a microscope for signs of inflammation.

Because many temporary conditions, such as infections, cause the same symptoms as ulcerative colitis, your doctor will want to test your stool for other conditions that could explain your symptoms or make your symptoms worse. Tests for parasites and for bacterial infections will be done. Blood tests will be done to check for a low blood count or low iron levels, which can occur in ulcerative colitis. Blood tests also can help to detect inflammation. Blood tests should be done to check on your liver because inflammation of the liver ducts (called sclerosing cholangitis) occurs in some people with ulcerative colitis.



Expected Duration

Ulcerative colitis is a lifelong condition, unless the large intestine is removed by surgery. Most people with ulcerative colitis do not choose to have their colon removed, because their symptoms can be controlled with medication or because they only have symptoms once in a while. In ulcerative colitis, the inflammation is not always active, so there can be long breaks between symptoms. Each time ulcerative colitis acts up, symptoms can occur for weeks or months. Often these flare-ups are separated by months or years of good health with no symptoms. Some people are able to identify triggers that aggravate their symptoms. By managing their diet, these people can increase the time between flare-ups.

Prevention

There is no way to prevent ulcerative colitis. However, some people are able to decrease the frequency of symptoms by avoiding certain foods, such as spicy foods or milk products. If you have ulcerative colitis, you can decrease the toll the condition takes on your body by eating a well-balanced, nutritious diet. By storing up vitamins and nutrients, even between episodes of symptoms, you can decrease complications from malnutrition, such as weight loss or a low blood count.

It's important to know that ulcerative colitis increases your risk of colon cancer. People with extensive inflammation in the whole colon have the highest risk. When the entire colon is involved, the risk of cancer can be as much as 32 times normal. About 5% of people with ulcerative colitis will develop cancer in the colon. Because of

the higher cancer risk, it is important to have your colon checked frequently for early signs of cancer. If you have had ulcerative colitis affecting the entire colon for 8 years or more, or if you have had just the bottom half of the colon affected for 15 years, you should start being screened regularly for cancer. One good strategy is to have a colonoscopy every 1 to 2 years.

Poor nutrition or the effect of colitis medicines can lead to osteoporosis, a disease that weakens bones and can cause bones to break. Osteoporosis can be prevented with specific medicines, as well as adequate exercise, calcium and vitamin D. If you have ulcerative colitis, you should discuss this issue with your doctor.

Treatment

Medications

Medications are very effective at improving the symptoms of ulcerative colitis. Most of the medications that are used work by preventing inflammation in the intestine.

The medicines that commonly are tried first are a group of anti-inflammatory medicines called aminosalicylates. These medicines are chemically related to aspirin, and they suppress inflammation in the gut and in joints. They are given either by mouth or directly into the rectum, as a suppository (a waxy capsule that is inserted into the rectum) or an enema (liquid that is squeezed from a bag or bottle into the rectum). Some medicines in this group include sulfasalazine (Azulfidine), mesalamine (Asacol, Pentasa, Rowasa) and olsalazine (Dipentum). These medicines clear up symptoms in most people, but you may need to be treated for three to six weeks before you are free of symptoms.

Other, more powerful anti-inflammatory medicines are helpful, but they suppress the immune system, which causes an increased risk of infections. For this reason, they are used less often for long-term treatment. These medicines include prednisone (sold under several brand names), methylprednisolone (Medrol), budesonide (Entocort), azathioprine (Imuran), mercaptopurine (Purinethol), infliximab (Remicade) and cyclosporine (Neoral, Sandimmune).

You may also be given medicines that make symptoms less painful by decreasing spasms of the colon. One example is hyoscyamine (Levsin, NuLev).

When symptoms are severe or when diarrhea causes dehydration, you may need to be admitted to the hospital to get fluids and, sometimes, nutrition intravenously (through a vein) while the colon recovers.

Surgery

Surgery is used in people who have severe symptoms that are not controlled by medicines, who have unacceptable side effects from medicines, or who have a very high risk of colon cancer because of extensive inflammation in the whole colon. One of several surgeries may be used to treat ulcerative colitis, depending on the amount of colon that is affected. Either part of the colon or the entire colon can be removed. After some surgeries, bowel movements will have to leave the body through an opening called a stoma in the abdominal wall. The stoma replaces the function of the rectum, and may be connected to a drainage bag. It may be used temporarily or permanently. Newer surgical techniques allow many patients to keep the layer of the rectum that contains its muscles, even though the lining of the rectum needs to be removed. This type of surgery (called ileoanal anastomosis, or pull-through surgery) has a cosmetic advantage, and it allows bowel movements to pass through the

rectum and to be near normal, except that bowel movements are more frequent (usually five to six times per day) and contain more liquid.

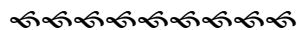
When to Call a Professional

New or changing symptoms often mean that additional treatment is needed to keep ulcerative colitis under control. For this reason, people who have ulcerative colitis should be in frequent contact with their physicians. Common symptoms that require a doctor's immediate attention are fever, which could indicate infection or a ruptured intestine, and heavy bleeding from the rectum. A serious, but uncommon, complication, called megacolon, results when the colon inflammation is so severe that it stops the colon's motion. Megacolon causes the abdomen to swell, which can cause vomiting or severe abdominal pain and bloating. Megacolon requires emergency treatment.

Prognosis

Ulcerative colitis can affect people very differently. Many people have only mild symptoms and do not require continuous treatment with medicines. Others might require multiple medicines or surgery. Unless it is treated with surgery, this disease is a lifelong condition. Ulcerative colitis requires people to pay special attention to their health needs and to seek frequent medical care, but it does not prevent most people from having normal jobs and productive lives. As is the case for any chronic illness, it can be helpful for a person newly diagnosed with ulcerative colitis to seek advice from a support group of other people with the disease.

Reference: www.intelihealth.com



Terminology

Dandy fever



Is an acute mosquito-borne viral illness of sudden onset that usually follows a benign course with headache, fever, prostration, severe joint and muscle pain, swollen glands (lymphadenopathy) and rash. The presence (the "dengue triad") of fever, rash, and headache (and other pains) is particularly characteristic. Better known as dengue, the disease is endemic throughout the tropics and subtropics. It goes by other names including breakbone fever. Victims of dengue often have contortions due to the intense joint and muscle pain. Hence, the name "breakbone fever." Slaves in the West Indies who contracted dengue were said to have "dandy fever" because of their postures and gait.

Reference: www.medterms.com



Complementary Medicine

Aloe Vera

How Aloe Vera Is Used

- Aloe leaves contain a clear gel that is often used as a topical ointment.

- The green part of the leaf that surrounds the gel can be used to produce a juice or a dried substance (called latex) that is taken by mouth.



What Aloe Vera Is Used For

- Traditionally, aloe was used topically to heal wounds and for various skin conditions, and orally as a laxative.
- Today, in addition to traditional uses, people take aloe orally to treat a variety of conditions, including diabetes, asthma, epilepsy, and osteoarthritis. People use aloe topically for osteoarthritis, burns, and sunburns.
- Aloe vera gel can be found in hundreds of skin products, including lotions and sunblocks.
- The FDA has approved aloe vera as a natural food flavoring.

Turmeric (Curcumin)

What Turmeric Is Used For

- In traditional Chinese medicine and Ayurvedic medicine, turmeric has been used to aid digestion and liver function, relieve arthritis pain, and regulate menstruation.
- Turmeric has also been applied directly to the skin for eczema and wound healing.
- Today, turmeric is used for conditions such as heartburn, stomach ulcers, and gallstones. It is also used to reduce inflammation, as well as to prevent and treat cancer.



How Turmeric Is Used

Turmeric's finger-like underground stems (rhizomes) are dried and taken by mouth as a powder or in capsules, teas, or liquid extracts. Turmeric can also be made into a paste and used on the skin.

Reference: nccam.nih.gov/herbs



FDA News

Abbott Withdraws Sibutramine from Market



Abbott Laboratories has withdrawn the obesity drug sibutramine (Meridia) from the market in light of clinical trial data pointing to an increased risk for stroke and myocardial infarction, the US Food and Drug Administration (FDA) announced.

The agency asked Abbott Laboratories to pull the drug from the market after it evaluated data from a postmarketing study of the drug's cardiovascular safety. The study, called the Sibutramine Cardiovascular Outcomes Trial (SCOUT), demonstrated a 16% increase in the risk for serious cardiovascular events such as nonfatal heart attack, nonfatal stroke, the need for resuscitation after the heart stopped, and death in a cohort of patients given sibutramine compared with another given a placebo. In September, an FDA advisory panel reviewed the SCOUT results, with half of the members in favor of withdrawing sibutramine and the other half recommending stricter access to the drug and tougher label warnings.

Following the advisory panel vote, the FDA concluded that the cardiovascular risks posed by sibutramine outweigh the modest weight loss observed with the drug, which the agency had approved in 1997.

Reference: www.fda.gov/NewsEvents

Drug-Drug interactions

Calcium Channel Blockers + Macrolides

Erythromycin markedly increases the bioavailability of felodipine. Isolated reports describe increased felodipine or verapamil effects and toxicity in patients when given erythromycin or clarithromycin.

Mechanism:

Calcium channel blockers are metabolized in the gut wall and liver by the cytochrome P450 CYP3A subfamily of isoenzymes, which are inhibited by erythromycin and clarithromycin, so that in their presence a normal oral dose becomes in effect, an overdose with its attendant adverse effects.

Verapamil, erythromycin and possibly clarithromycin, are also P-glycoprotein inhibitors which may contribute to the pharmacokinetic interaction by reducing the elimination of the calcium channel blocker or by increasing macrolide absorption.

Reference: Stockley's, Karen Baxter, Stockley's Drug Interactions, 7th edition, Page 657, UK, William Clowes Ltd, Beccles, Suffolk, 2006.



Test Your Knowledge

1- The nucleic acids, RNA and DNA, play important roles in the biosynthesis of protein.

A sugar inherent in their structure is

- A. glucose
- B. sucrose
- C. fructose
- D. sorbose
- E. none of the above

2- Which of the following are examples of type I immediate or allergic hypersensitivity?

- A. Hay fever
- B. Pollen allergy
- C. Insect venom hypersensitivity
- D. Allergic asthma
- E. All of the above

3- Epinephrine is NOT given orally because

- A. it is inactivated in the gastric mucosa
- B. local vasoconstriction inhibits absorption
- C. it is rapidly inactivated in circulation
- D. none of the above
- E. all of the above

(You will find the right answers at the bottom of the last page)

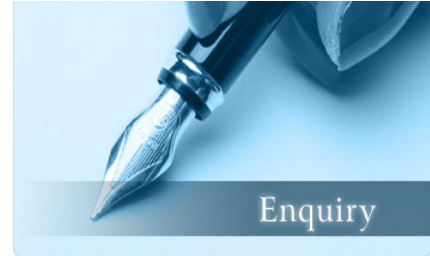


Real Enquiries

At the "Drug Information Center", we respond to enquiries from the professional health team as well as from others. Here's one of the interesting enquiries received at the center!

Enquiry received from: Ph/Radwa – Pharmacist at the Clinical Pharmacy Lab., Assiut University Pediatric Hospital

Enquiry: We received complaints from some Pediatricians about Lipovenous. It has been causing bacteraemia in children receiving it. Is this caused by the drug itself or is due to the use of incompatible IV infusion sets?



Summary of Answer:

Lipovenoes consists of soybean oil (LCT) and egg phospholipids as emulsifier. A strong association has been found between giving lipids through peripheral venous catheters made of Teflon and development of coagulase-negative staphylococcal bacteraemia in neonates. It was suggested that investigation of catheters made of other materials, or other delivery might reduce the opportunity for coagulase-negative staphylococci to adhere and come into contact with nutrient-rich growth media in the form of lipid emulsion. Others also took the view that this work should not lead to the abandonment of parenteral lipids in premature infants. Lipid tubing and all IV solution must be changed every 24 hours regardless of volume remaining.



Preventing and Treating Burns

Many of burn injuries and subsequent deaths may be prevented with a working smoke alarm or some simple home safety tips. With a little thought and preparation, you can protect yourself and the ones you love. Here's how.

Preventing Burns While Cooking

The kitchen is the heart of the home, and it's not surprising that most accidental burns occur there. Fortunately, many of these burns can be prevented. Here are a few tips to help you make your kitchen a safer place.

- Stay in the kitchen while food is cooking.
- Turn pot handles toward the back or center of the stove.
- Keep items such as dish towels, plastic bags, and long sleeves away from the heating surface.
- Never cook while holding a child or pet.
- Keep small children and pets away from the front of the oven or stove.

First Aid for Kitchen Burns

If despite your best efforts, you or a family member suffers a burn in the kitchen, follow these first aid tips:

- Run cool water over the burned area, soak it in cool water (not ice water), or cover it with a clean, cold, wet towel.

- Cover the burn with a sterile bandage or a clean cloth.
- Protect the burn from pressure and friction.
- Use over-the-counter medications such as ibuprofen or acetaminophen for pain.
- Do not apply butter, ice, fluffy cotton dressing, adhesive bandages, cream, oil spray, or any household remedy to a burn.
- If a burn appears to be severe or you develop signs of infection, call your doctor.

First Aid for Scalding Burns

If you or a family member suffers a scalding burn, take the following steps to start healing:

- Remove any clothing that is wet from the hot liquid.
- Slowly cool the injury under running tap water for 30 minutes.
- Do not apply ice, because it may stop important blood flow to the damaged skin.
- Do not apply butter or salves to scald injuries.



First Aid for Sunburn

While sunburn may lead to cancer later, it can be painful now. Here are some tips to relieve the burn:

- Take ibuprofen to reduce pain and inflammation.
- Apply an over-the-counter hydrocortisone cream or moisturizing cream three times a day to help with swelling and pain. This can also help if sunburn starts to itch later.
- If blisters break, trim off the dead skin with scissors and apply an antibiotic ointment. Don't intentionally break the blisters.
- Take cool baths or apply cool, wet compresses several times daily. Adding 2 ounces of baking soda to a tub full of cool water may also help.
- Do not apply petroleum jelly, butter, or ointments to sunburn.

Reference: www.webmd.com/a-to-z.../preventing-treating-burns

Answers:

1- (E) Ribose or desoxyribose is the carbohydrate portion.

2- (E) Immediate/ allergic hypersensitivity usually occurs within 15 minutes and is primarily mediated by immunoglobulins E and G, basophils, or mast cells. All of the examples provided may be classified as type I responses.

3- (E) All three effects are seen; epinephrine is poorly effective when administered orally.

This Bulletin is produced by the Drug Information Center - Faculty of Pharmacy, Pharmaceutics Department, Assiut University. E-mail: clinipharm_assiut@yahoo.com, tel.088/2357399 & 088/2411556

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