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ULCERATIVE COLITIS IN CHILDREN

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ABSTRACT

Ulcerative colitis is a long-term (chronic) condition and belongs to a category of disease known as Inflammatory Bowel Disease. . In Ulcerative colitis, the inner lining of child's large intestine (colon or bowel) and rectum gets inflamed. . Some patients also describe tenesmus. The onset is typically insidious. This inflammation often starts in the rectum and lower (sigmoid) intestine. Then it spreads to the whole colon. This causes diarrhoea or frequent emptying of the colon. As cells on the surface of the lining of the colon die and fall off, open sores (ulcers) form. This causes pus, mucus, and bleeding. In severe cases, purulent rectal discharge causes lower abdominal pain and severe dehydration, especially in the elderly population.

KEY WORDS: *Tenesmus, insidious, purulent rectal discharge, proctocolectomy.*

Incidence and aetiology

Multiple studies have shown that 25% of all IBD cases have their onset in children less than 18 years of age . However, the incidence of the disease seems to be increasing internationally. A systematic review of :

Genetic predisposition

In cases of ulcerative colitis, there is seen chromosomal instability. Family history of irritable bowel disease then the patient is at higher risk of a developing ulcerative colitis.

Mucosal Immune System -(Immune-Regulatory Defect)

Environmental Triggers

luminal bacteria, infection, NSAIDs (Non Steroid Anti Inflammatory Drug e.g. Ibuprofen) smoking

Sign and symptoms of Ulcerative Colitis:

Symptoms may vary among affected people. Studies have proved that about 50 percent of people diagnosed with ulcerative colitis may have the following symptoms: Malnutrition, Electrolyte imbalances, Increased abdominal sounds, Bloody Diarrhoea, Weight loss, Abdominal pain, Rectal pain, Fever, Joint pain, Joint swelling, Skin ulcers, Mouth sores, Nausea, Vomiting.

Diagnostic Findings

Blood tests.

Blood tests to include CBC, CRP, and ESR.

These tests also check if child has a higher number of white blood cells. That might mean there is an inflammation problem.

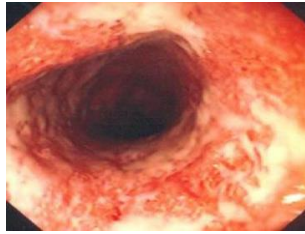
Stool studies. To see if there is any blood in the stool and check for infection by a parasite or bacteria. Other tests could look for inflammation in the stool.

Upper Endoscopy. This test checks the inside of part of the digestive tract. Tissue samples or biopsies from inside the digestive tract may also be taken for testing.

Colonoscopy. It can help check for abnormal growths, inflamed tissue, sores or ulcers, and bleeding. To take out a tissue sample or biopsy to test it.



Colonoscopy showing Normal mucosa in the sigmoid colon.



Ulcerative colitis as visualized with a colonoscope

Lower GI series or barium enema. This test checks the large intestine, including the colon and rectum. A thick, chalky fluid called barium is put into a tube. It is inserted into your child's rectum as an enema. Barium coats the organs, so they can be seen on an X-ray. An X-ray of your child's belly will show if there are any narrowed areas called strictures. It will also show any blockages or other problems.

OTHER FINDINGS

CT Scan

X-Rays

Flexible sigmoidoscopy

Complications of Ulcerative Colitis:

Thickening of the intestinal wall, Severe dehydration, Inflammation of skin, joints, and eyes, Toxic megacolon (rapidly swelling colon), Liver disease (rare), Kidney stones, Intestinal bleeding (can become severe), Perforation, Sepsis – blood infection.

Medical Management

Treatment

will depend on your child's symptoms, age, and general health. It will also depend on how severe the condition is.

Diet

Changing diets

generally does not help this condition. But if certain foods upset your child's stomach, avoiding those foods may help ease your child's symptoms.

MEDICATIONS:

Medicines are often used to reduce the inflammation in the colon. Examples of medications include steroids, antibiotics, or drugs that affect the body's immune system.

1.5-Aminosalicylic acid derivatives- sulfasalazine, mesalamine, balsalazide, olsalazine **2.Antibiotics -** metronidazole, ciprofloxacin, rifaximin

4.Corticosteroid agents - Hydrocortisone, prednisone, methylprednisolone, prednisolone, budesonide, dexamethasone

5.Immunomodulator agents - Azathioprine, 6-mercaptopurine, methotrexate, cyclosporine

6.Tumor necrosis factor inhibitors- Infliximab, Adalimumab, certolizumab pegol

7.Anti-integrin agents- Natalizumab, Yedolizumab

1. Hospital stay

If

child's symptoms are severe, he or she may need to stay in the hospital. This can help make sure child is getting the nutrition needs. It can also stop diarrhoea and the loss of blood, fluids, and minerals. Child may need a special diet, feeding through a vein, or medicines. Some children may also need surgery.

Surgical

Management

About 1 in 4 to 2 in 50 children with this condition eventually need surgery. This is done because of heavy bleeding, tear (perforation) of the colon, cancer risk, or severe illness. In surgery, your child's colon is removed. This may also be done if other treatments don't work or if your child has side effects.

2. Child may have one of the following surgeries:

1. Proctocolectomy

with ileostomy. This is the most common surgery. In a proctocolectomy, the whole colon and rectum are taken out. In an ileostomy, your child's surgeon makes a small opening of the abdominal wall. The tip of the lower small intestine (ileum) is brought to the surface of your child's skin. This allows waste to drain.

2. Ileoanal anastomosis. In this surgery, just the affected part of your child's colon is taken out. The outer muscles of the rectum aren't removed. Surgeon attaches the ileum to the inside the rectum. This forms a pouch to hold the waste. This allows child to pass stool through his or her anus in a normal way.

Nursing

Management

:

If patient is admitted with an acute phase of ulcerative colitis, the healthcare practitioner may order the following:

- NPO status (nothing by mouth) bowel rest
- IV fluids to maintain hydration and electrolytes

Limit activity

- Monitor bowel sounds - Monitor

for signs and symptoms of infection (peritonitis)

- Monitor for signs and symptoms of haemorrhage (caused by ulcers). - As

diet advances, place on a low fibre, high protein diet - Avoid the

following foods: nuts, alcohol, caffeine - Need instruction on

smoking cessation

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