Pediatric Crohn's Disease

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The rate of Crohn's disease in children is growing with approximately 58 in 100,000 children in the United States effected.[1] While this disease is most frequently diagnosed between the ages of 15 and 35, [2] the disease develops in childhood and early adolescence for nearly 20-25% of patients.[3] Crohn's disease is a chronic life-long disease characterized by inflammation occurring anywhere along the gastrointestinal tract from the mouth to the anus. It most commonly occurs at the end of the small intestine, often appears in patches, and can damage the entire thickness of the bowel wall.[2] Crohn's disease, along with ulcerative colitis, are the two most common types of inflammatory bowel diseases (IBD).[4]

The causes of Crohn's disease are not well understood. Research shows it may be an interplay of factors including immune system disturbances, genetic predisposition, and environmental triggers. In those with Crohn's disease, the immune system does not properly respond to foreign invaders such as bacteria, viruses, and fungi occurring in the intestinal tract, and this results in inflammation. Environmental factors may trigger this abnormal immune response. This disease is more common in developed countries, urban areas, and Northern climates. Smoking, antibiotics, appendicitis, and diet are potential environmental factors that can trigger it. Additionally, there are genetic predispositions as Crohn's disease has been shown to run in families and there are over 160 genes associated with IBD.[2]

Crohn's disease may negatively impact growth in children. Common issues in children with the disease include weight loss or trouble with weight gain, delayed puberty, lower final adult height and issues with bone health. Micronutrient deficiencies often occur in children with Crohn's Disease due to reduced intake, malabsorption, medication side effects, and systemic inflammation. Iron and vitamin D deficiencies are seen most commonly. However, vitamin B12, zinc and selenium may also be low.[5] Crohn's disease can also lead to emotional issues since children with this disease may be in pain and feel isolated and alone. In fact, as many as 25% of adolescents with this disease were found to be depressed.[6]

Inflammation from Crohn's disease alters the ability of the gastrointestinal organs to function properly, and ultimately leads to the common symptoms of Crohn's disease in children including diarrhea, abdominal pain, rectal bleeding, and weight loss. Some may also have less obvious symptoms including lethargy, isolated join pain, and oral findings.[2] Crohn's disease can be diagnosed through various exams. Physical exams look for abdominal bloating and tenderness or pain near the liver and spleen. Laboratory tests of the blood and stool look for signs of anemia such as smaller than normal red blood cells and signs of infection or inflammation such as increased white blood cell count. Doctors may also do X-rays of the upper and lower GI tract and a colonoscopy and endoscopy to locate the site of inflammation.[7]

It is important to know that while Crohn's disease cannot be cured it can be treated. Treatment goals include relieving symptoms, optimizing growth, and improving quality of life. Most patients are in an active state of Crohn's disease at the time of diagnosis. Even if remission is achieved, relapse rates are very high with 35% of patients having one or two relapses within a year of remission.[2] Since relapse rates are so high, it is important that once Crohn's disease is under control patients do their best to maintain remission. Full mucosal healing is always the treatment goal for the best long-term outcomes. Common treatment options include antibiotics, corticosteroids, and biologic agents. Additionally, following a liquid diet, typically for a time

period of 6-8 weeks, is another treatment option that often has great outcomes in children. This method is usually most effective when the disease is first diagnosed. It has great results in achieving remission and full mucosal healing.[8]

Dietary recommendations are based on the individual, as each child will have different dietary needs and sensitivities. If a child is in remission and has no symptoms, it is important they follow a healthy diet including whole grains, fruits, vegetables, and lean protein sources. Foods that are often problematic and have been associated with causing flare ups are dairy, high-fiber foods, raw and gassy vegetables such as broccoli, many raw fruits, and caffeine.[9] Overall, preventing relapses and flare-ups is key! Once a child improves and is in remission, it is important to prevent it from coming back. They may need to stay on medication, avoid certain foods, and so forth. It is important to have a great trustworthy doctor when dealing with Crohn's disease. This disease is challenging to the child suffering from it and to the family. More information on Crohn's disease can be found by following the website: www.ccfa.org and the Instagram hashtag: #CrohnsAwareness.

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