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Research Article

CROHN'S DISEASE IN A 12 yrCHILD: A RARE CASE REPORT

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A R T I C L E I N F O

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A B S T R A C T

A rare case of Crohn's disease with Rectal Prolapse in a 12 yr male child was presented to the Dept. of Paediatrics, M.K.C.G.Medical College, Berhampur, Odisha, India. Crohn's Disease and Ulcerative Colitis are chronic, debilitating conditions that affect the gastrointestinal tract. They are distinctly different illnesses but are grouped together as Inflammatory Bowel Disease (IBD) because they produce similar signs and symptoms, including intestional inflammation, abdominal pain, diarrhoea. Crohn's disease can affect any portion of gastrointestinal tract, where as Ulcerative colitis is restricted to the colon. The exact factors that trigger these diseases are still unclear, but research indicates that these illnesses occur in genetically susceptible individuals whose immune systems react abnormally to environmental agents such as infectious agents in the intestine. There are four principles of components of a treatment programme for a child with Crohn's disease like 1-Medical therapy, 2-Surgical management, 3-Nutritional rehabilitation and 4-Psychological support.

INTRODUCTION

Case Report

A 12yr male child presented with irregular fever and loose motion which was mucous like and occasionally blood mixed for 4 month. No h/o vomiting, pain abdomen. There was no h/o cough and cold, respiratory problem, haemoptysis, convulsion, altered sensorium, headache, Blood transfusion, hospitalization or taking any chronic medication. On leading question mother told that his Grand father died a year back during treatment for Pulmonary Tuberculosis. There was a history of some rectal mass protruding out during strain and defecation. There was h/o weight loss for last 2m. There was no h/o arthralgia or rash. He was a documented case of HIE-1. Achieved all devlopmental milestone as per his age. Not immunized to any vaccination. BCG scar absent. Belongs to lower economic status. His weight was 18kg and height was 135cm, Both height and weight falls under 5th centile. There was no previous growth data available.

On Examination patient was febrile, cachectic, lethergic.mildPallor, noicterus, cyanosis, clubbing, lymphadenopathy, edema.Vitalstable. One necrotizing ulcer over Rightside dorsum of foot. He was having hypocalcemia along withCarpopedal spasm and Trausseausign.

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No ulceration in oral cavity. On inspection abdomen looks normal, umbilicus central, inverted. No scar mark, visible vein or peristaltic movements over abdomen. On palpation abdomen soft, non tender, no signs of peritonitis or organomegaly. Bowel sound heard normally. Per Rectal examination revealed laxity of external anal sphincter. Examination of joint revealed a full range of movements, with out sign of inflammation. Examination of other systems like respiratory or cardiovascular system being normal.He was having a peculiar rotatory movements of head suggestive of Habit disorder since childhood which became somewhat increased for last 2-3 month.

We investigated in the line of TB Intestine as for its clinical presentation and we wanted to rule out HIV as it is very common in Ganjam district of Odisha.Our other D/D wereCaeliacdisease, Infectious causes, IBD etc.

Investigation reports revealed Hb-7.4gm% with microcytic hypochromic type of picture. ESR35mm.MP(ICT) negative, LFT, RFT normal. Urine examination normal. SickIing test positive. Hb Electrophoresis suggestive of Sickle Cell Trait. SerumCa was 6mg/dl which after treatment with oral calcium for 5days came out to be 10.4mg/dl.ICTC nonreactive. Gastric Aspirate for AFB not detected, CBNAAT of Gastric Aspirate MTB not detected. Anti Tissue Transglutaminase Antibody is 2.45units(<20 is negative). Colonoscopy Findings suggestive of Terminal ileum narrowed and thickened.Caecum pulled up, FlatSuperficial Ulceration seen in ascending and Transverse Colon, Large deep Ulceration confined to rectum only, Rectal Prolapse seen. Impression was Crohn's Colitis or Tubercular. Colonoscopic Biopsy suggestive of Nonspecific Colitis.Seum

level of Anti Saccharomyces Cerevisiae Antibody(ASCA) IgG and IgA was 54.05 and 10.84 Units (Normal is 0.00 to 20.00) which is suggestive of Crohn's disease and p-ANCA(Anti Myeloperoxidase Antibody) in serum was 1.22U/mL(Normal is <9.00). We diagnosed it as a case of Crohn's disease and started Tab.Sulfasalazine@50mg/kg/day with Steroid after consultation with Gastroenterologist. He was given Probiotics, Multivitamine along with Zinc. Aftera week of treatment patient's wellbeing improved. Patient discharged with steroid and sulfasalazine and advised for followup on OPD basis.And he referred to paediatric surgeon for definitive treatment for Rectal Prolapse.

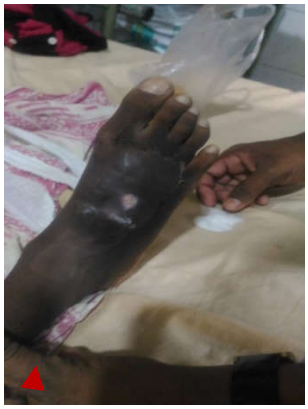

Figure 1 Healing ulcer in Right foot

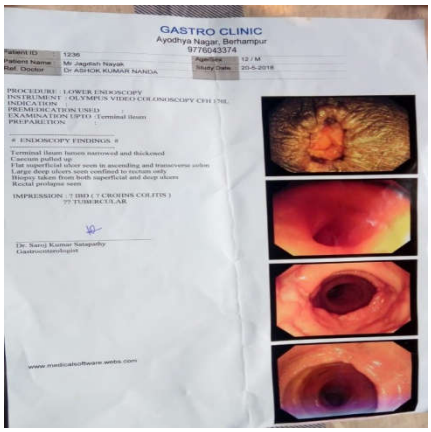

Figure 2 Colonoscopy view of that patient

Figure 3 Cachectic appearance of our patient

DISCUSSION

Inflammatory Bowel Disease (IBD) is a general term encompassing a range of diseases that cause chronic inflammation in the gastrointestinal tract and are not due to infections or other identifiable causes(1).The 2 main types of IBD are Crohn's disease (CD) and Ulcerative colitis(UC). The Crohn's and Colitis foundation of America estimates that as many as 1million Americans have either CD or UC (2).Of these individuals, approximately 20% are diagnosed in childhood(under 20 yrs old)(3). While paediatric CD and UC represents 2 unique idiopathic inflammatory disorders,their signs and symptoms are similar(1).Child with early onset IBD are more likely to have colonic involment.CD is a transmural inflammatory condition that may involve any site of GI Tract(Panenteric), but most commonly involves the terminal ileum, ascending colon and perianal region(1,4). Incontrast, classic UC is an inflammatory condition limited to mucosa layer of the colon.In a subset of patients with IBD involving the colon,clinicians may have difficulty categorizing the illness as either CD or UC. In these patients,the terms ''Indeterminate colitis'' or ''IBD-unclassified''(1,3).

As in adults, the prevailing hypothesis in paediatric IBD is that intestinal inflammation is the result of a complex interaction of genetic, environmental and immune factors(5). Certain diets may increase or decrease the risk of IBD, but no specific diet is proven to be protective or curative(6). Tobacco use has been identified as a risk factor for adult CD and protective factor for adult UC, but its role in paediatric is obviously limited. There is no clear association with other environmental factors like breastfeeding, education, climate, stress and NSAIDS exposure.

Child with IBD often display symptoms of chronic illnesses that may help clinicians suspect IBD early in the course of evaluation(7). These symptoms include variable abdominal pain, chronic diarrhea (either with or without blood in the stool), perianal lesions, growth failure and weight loss.Growth failure is present at diagnosis in 10%-40% of children with IBD(8). Weight loss is present in 85% of paediatric patients and 65% of Paediatric UC patients(6). Children withnew onset of IBD compared to adults are more likely to present with pancolitis; therefore, systemic symptoms like anemia and fatigue are more common(8).

Investigations like endoscopy and histology may differentiate CD and UC. On Endoscopy view CD may have ulcers, cobble stoning, skiplesions, strictures, fistula, abnormalities in oral and/or perianal regions, segmental distribution in contrast to UC where ulcers, erythema, loss of vascular pattern granularity, friability, spontaneous bleeding, pseudopolyps which may be continuous with variable proximal extension from rectum is common.Like wise histology in CD mainly submucosa or transmural involvement, ulcers, cryptdistoration, cryptsabscess, noncaseating, nonmucingranuloma, focal changes and patchy distribution incontrast to mucosal involment, cryptdistortion, cryptabscess, goblet cell depletion, mucin granuloma and continuous distribution in UC.

Treatment for CD based on four principles like medical therapy, surgical management, nutritional rehabilitation and psychological support. Corticosteroids are used to induce remission in moderate to severe CD.Aminosalicylates are indicated for mild mucosal disease.Sulfasalazine is strongly indicated for disease limited to the colon where as Mesalamine is best indicated for patients without colonic involment(9). Azathioprine and 6-Mercaptopurine(6-MP) used for corticosteroid resistant CD. Monoclonal antibodies that block TNFα and intravenous Cyclosporine may use in resistant cases. Surgical management is reserved is for drug resistant cases particularly with limited disease and for complicated cases like fistula. Total Enteral Nutrition suppresses inflammation therefore induces remission. Supplimentation

like vitamines A,D,E and of zinc,selenium and folic acid may be given. Psycological support may be required as it is a chronic and relapsing disease and may cause depression and school absenteeism (10).

Perianal complications such as fissures, ulcerations, fistulas, abscesses and stenosis may occur. Oral lesions such as mucogingivitis, mucosaltags, deep ulcerations, cobblestoning and lip swelling occurs in children with CD. High percentage of Children may devlop malnutrition. Less common complications include uveitis, episcleritis, erythemanodosum and pyodermagangrenosum.

Any child presented with Bowel Disorders one has to think of infectious causes like Giardiasis, Amoebiasis, Tuberculosis first followed by inflammatory causes like IBD and allergic disorder towards last.

CONCLUSION

IBD is a chronic and relapsing disease. Sometimes endoscopy and histology is required to diagnose and distinguish between CD and UC. Most of the patients responds to medical therapy. Surgical therapy is reserved for complicated cases only. Associated Rectal Prolapse with features of Hypocalcemia in a Childhood CD makes this case a rare one.

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