

Inflammatory Bowel Disease in Early Childhood - A Case Report

Asish Bhakta*

Pediatric General Practitioner, Bhakta Clinic and Nursing Home, West Bengal, India

***Corresponding Author:** Asish Bhakta, Pediatric General Practitioner, Bhakta Clinic and Nursing Home, West Bengal, India.

Received: June 18, 2019; **Published:** July 22, 2019

Abstract

Background: Persistent diarrhea with weight loss in a child merits investigation to find out the underlying cause.

Case Characteristics: A 2-year-old boy was suffering from long standing diarrhea and weight loss.

Observation: chronic diarrhea, failure to thrive, perianal fistula, Episcleritis and the classical Barium x-ray findings in small intestine led to the diagnosis of Crohn disease.

Outcome: The child recovered after treatment with immunosuppressive drugs doing well after three years of follow-up.

Message: We should always think of Crohn's disease as a possibility while treating a patient with chronic diarrhea, not responding to conventional therapy and look for evidence of IBD (Inflammatory bowel Disease) which may appear later in course of the disease.

Keywords: *Diarrhea; Weight Loss; Perianal Fistula*

Introduction

Crohn's disease affects about 3.2 per 1000 people in Europe and North America [1]. It is less common in Asia and Africa [2]. Since 1970s the incidence is increasing in the developing world like ours. "Inflammatory bowel disease resulted in 47,400 deaths in 2015 and those with Crohn's disease have a slightly reduced life expectancy" [3,4]. Although the disease is more prevalent in adolescence and in twenties, here we present one case at 2 years of age. Several environmental factors like Cigarette smoking, multiple genetic factors, immunological factors and bacterial factors may play a role in the pathogenesis. There is no clear cut evidence of autoimmunity; an immune deficiency state may be associated [5].

Case Report

A 2 yrs old male child was presented to my clinic with a history of diarrhoea for 2 month along with pain abdomen, occasional vomiting and weight loss as stated by his mother. There was low grade fever and the child was not taking enough food. The stool was yellowish, semi liquid, foul smelling and contained mucous but no blood. Frequency of stool was 7 - 8/day.

H/O past illness: Recurrent attack of URTI and LRTI after 10 months of age. No history of any drug allergy or dust allergy

Birth history: Normal vaginal home delivery at term without any perinatal complication. The mother had proper antenatal check-up and was not anaemic. The birth weight, height and H/C were not recorded at the time of birth.

Feeding history: Absolutely breast fed. Solid food was introduced after 1 year of age comprising mainly rice, vegetables and fish. No known food allergy.

Immunization history: BCG, OPV, DPT, Hepatitis-B, Measles, MMR vaccines given in time according to National Immunization Schedule.

Family history: Financially stable joint family living in remote village. This is 2nd child of the mother. The 1st child is a 5 year old daughter, apparently healthy. Father works away and visits home infrequently. There is no smoker in the family. No history of HTN, DM or any chronic disease in the family.

On examination: The child looked irritable and pale. Body weight was 10 kg (below 5th percentile), Height 88 cm (10th percentile). Signs of malnutrition like muscle wasting, edema feet and angular stomatitis were present. Cyanosis, clubbing and jaundice were absent. Eruption of 20 primary teeth was complete. There was oral thrush. No sign of dehydration. No abdominal distention. Liver was palpable one finger below the right costal margin. Spleen was not palpable. Cardiovascular system and Respiratory system examination revealed no abnormality. The neurological examination was normal.

Investigation: Stool R/E- Cyst of E.H, No reducing substance. Urine R/E- NAD (No abnormality detected), CBC- HB- 10.2 gm%. TC (WBC)- 12900/cmm, TC (Platelet)- 480000/cmm, P- 67% L- 30%, E- 3%, ESR- 39 mm, CRP-24.15 mg/L, Blood urea- 18.63 mg%, Serum creatinine- 0.63 mg%. Blood sugar (Random)- 83.55mg%.

Liver function test: Total Bilirubin 0.51 mg%, SGOT 87.49 U/L (N-up to 40), SGPT 25.35 U/L (N-up to 38), Alkaline phosphatase 25.55 U/L (N- 44-147). Total protein 6.03 gm%, Albumin 2.86 gm%, Globulin 3.17 gm%. Chest x-ray-NAD, Mantoux test - Negative.

Discussion

Chronic diarrhoea may be caused by entamoeba histolytica/giardia/worm infestation. Yersinia is not common in tropical countries like India. Initial investigation goes against Intestinal tuberculosis. Crohn`s disease is a very close possibility. Ulcerative colitis may present with diarrhoea but the usual presentation is like bacillary dysentery. Celiac disease is of course a cause of chronic diarrhoea but wheat and barley was not yet included in the child`s diet. Lastly glycogen storage disease, SCID, intestinal lymphoma and leukemia should be kept in mind as remote possibilities. Thrombocytosis is a feature of Crohn disease.

Provisional diagnosis: Chronic diarrhoea due to amebiasis with mal absorption and malnutrition with oral candidiasis.



Figure 1

Treatment given: Oral Metronidazole, Fluconazole, Probiotics along with Zinc supplementation and ORS (Oral rehydration solution).

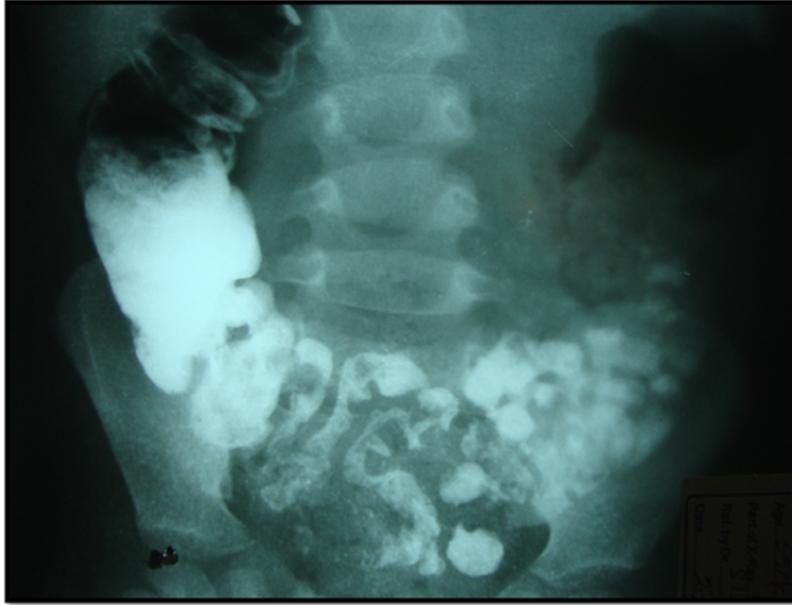


Figure 2

Follow up: On follow up visit after one week the condition of the patient deteriorated. The child lost further weight and was now 9.25 kg. There was additional findings of Aphthous ulcer inside the mouth, Episcleritis, and perianal fistula (Figure 1) with discharge of pus suggesting the probable diagnosis of Crohn disease. Diarrhoea, weight loss and pain abdomen are the classical triad of Crohn's disease. Finding of perianal fistula strongly pointed to the diagnosis.

USG of whole abdomen revealed neither gall stone nor any renal stone. Barium-meal x-ray of stomach, duodenum and follow-through demonstrated the string sign (Figure 2) of narrowed terminal ileum lumen.

Colonoscopy, Capsule Endoscopy and endoscopic biopsy were not done due to lack of facilities in remote village areas.

Final diagnosis: It was diagnosed as a case of Crohn's disease based on the clinical, radiological and haematological findings.

Treatment: Sulfasalazine (75 mg/kg/day) and a short course of ofloxacin (15 mg/kg/day x 7 days) along with Probiotics, vitamin B complex, oral iron preparation.

The patient improved dramatically in next 6months.His body weight increased to 11.5 kg and he was doing well.

F/U investigation after 6 months shows HB- 9.8 gm% TC (WBC) 7200/cmm, P20 L75 E3 M2, ESR 120 mm in 1st hour, CRP 13.65 mg/L, Total protein 8.15 gm % (albumin 3.71% globulin 4.44%). There was no sign of trans-mural progression of the disease. The perianal fistula healed up. Aphthous ulcer and Episcleritis disappeared.

Other medical treatment options are Prednisolone (1 - 2 mg/kg/day), Azathioprine, 6-mercaptopurine, methotrexate and infliximab after excluding tuberculosis.

Surgery is indicated if Crohn disease is unresponsive to medical treatment or there are complications like bowel perforation, intestinal obstruction, intractable bleeding and entero-colonic/entero-enteric/entero-vesical/entero-vaginal fistula. There is high morbidity but low mortality. Care should be taken to maintain good nutrition to prevent growth failure. Most children will live full life with intermittent flare-ups. So, there is hope for a good future with proper treatment and regular follow-up.

Conclusion

In the developing countries like India, malnutrition both as an effect or as a cause of diarrheal diseases, is quite common and is considered as an important factor contributing to under-five mortality and morbidity in paediatric population. Chronic diarrhoea which can also be caused by inflammatory bowel disease is not uncommon in early childhood even in a tropical country like India. It proves logical to go for thorough investigation to find out the underlying pathology in a child suffering from diarrhoea persisting for more than 2 - 4 weeks at a stretch so that we can prevent the development of unwanted complications by early institution of treatment as is seen in this classic case of Crohn's disease. We should therefore be vigilant about the progressive appearance of the diagnostic features later in the course of the disease in the follow up visits.

Acknowledgement

Dr Anjan Bhattacharya - FRCPCH (UK), Head of the Child Development Center, Apollo Gleneagles Hospital, Kolkata.

Bibliography

1. Molodecky NA, *et al.* "Increasing incidence and prevalence of the inflammatory bowel diseases with time, based on systematic review". *Gastroenterology* 142.1 (2012): 46-54.e42.
2. Hovde Ø and Moum BA. "Epidemiology and clinical course of Crohn's disease: results from observational studies". *World Journal of Gastroenterology* 18.15 (2012): 1723-1731.
3. GBD 2015 Mortality Causes of Death Collaborators. "Global, regional, and national life expectancy, all-cause mortality, and cause-specific mortality for 249 causes of death, 1980-2015: a systematic analysis for the Global Burden of Disease Study 2015". *The Lancet* 388.10053 (2016): 1459-1544.
4. Baumgart DC and Sandborn WJ. "Crohn's disease". *Lancet* 380.9853 (2012): 1590-1605.
5. Lalande JD and Behr MA. "Mycobacteria in Crohn's disease: how innate immune deficiency may result in chronic inflammation". *Expert Review of Clinical Immunology* 6.4 (2010): 633-641.

Volume 8 Issue 8 August 2019

©All rights reserved by Asish Bhakta.