İntestinal Lymphangiectasia due to Recurrent Giardiasis

Dr. Gürol ÖKSÜZOĞLU, Dr. Yusuf BAYRAKTAR, Dr. İbrahim HAZNEDAROĞLU, Dr. Berna GÖKER, Dr. Bedri UZUNALİMOĞLU , Dr. Burhan KAYHAN

Özet: *REKÜREN GİARDİASİS VE İNTESTİNAL LENFANJİEKTAZİ.*

Hastanemize 1974'ten beri diare ile 4 kez başvuran ve her seferinde giardiasis tanısı konup tedavi edildikten sonra düzelen lbir hastada rekürен giardia infestasyonunun muhtemel nedeni olarak aklorhidri tespit edilmiş ve son ince barsak biyopsisinde intestinal lenfanjiektazi bulunmuştur. Bu bulgular aklorhidrinin giardiasise zemin hazırlayabilecek bir patoloji olduğunu ve rekürен giardiasisin sekonder intestinal lenfanjiektazi sebebi olabileceğini ima etmektedir.

Anahtar kelimeler: Giardia lamblia,l giardiasis, metranidazol, intestinal lenfanjiektazi.

Summary: *Since 1974 a patient applied to our hospital 4 times complaining of diarrhea. Each time she was diagnosed to be sufering from giardiasis and after appropriate treatment she was completely normal. While searching for the cause of recurrent giardiasis achlorrhydria was found and what is more, the last small-bowel biopsy revealed intestinal lymphangiectasia. We conclude that achlorrhydria may predispose patients to recurrent giardiasis and recurrent giardiasis mal lead to secondary lymphangiectasia.*

Key words: , Giardi lamblia, giardiasis, metranidasole, intestinal lymphangiectasia.

In 1974 a 32 year old woman presented with bloody diarrhea (6-8 times a day) and weight loss of 8 months' duration. She was also complaining of epigastric pain when hungry, malaise and lower abdominal pain as well. The physical examination revealed increased bowel sounds, the barium studies of the entire gastrointestinal tract were normal and the stool cultures together with the parasitological work-up were all negative. Esophagogastroduodenoscopy was performed to find out the reason of her dyspepsia and the antral biopsy revealed atrophic gastritis. Vitamin B-12 level was normal but there were anti-parietal cell antibodies in the blood.

To understand the reason for diarrhea small bowel biopsy was performed too which was compatible with giardiasis (1,2) So she was treated with metranidazole p.o for 10 days and after the therapy she was fine (3).

İn 1980 she came back with an upper right abdominal pain, fever and jaundice. That time the diagnosis was cholelithiasis comphicated by cholangitis and cholesistectomy was performed.

In 1983 the diarrhea (watery but this time not bloody) recurred. İt was 6-8 times a day and without any malodor or mucus. In the physical examination there were urticarial skin lesions. minimal pretibial edema, hyperactive bowel sounds and she was cachectic. Serum albumin level was slightly below normal, the gamma globulin levels were all normal, 24 hour fecal fat loss was 13.2 gr/dl. and the barium studies of the small bowel revealed segmentation, fragmentation of barium and minimal dilatation of proximal jejunum. pathological examination of the jejunal biopsy taken with a Crosby capsule revealed giardia lamblia trophosoites in the mucosa. A second course of metranidasole therapy was applied and it was successful again.

In May 1991 diarrhea occured again, giardia lamblia trophosoites were seen in the stool smear and metranidasole therapy was given for the third time.

Hacettepe Üniversity Hospital Department of Gastroenterology and Pathology.

2 months later she admitted to our department with the same complaints again. Smal intestinal biopsy was performed but this time giardiasis was accompanied by patchy lymphangiectasia (dilated lacteals and lylmphatics in lamina propria, clubbed villi). Abdominal ultrasonography, computerised tomography, lymphangiorgraphy could not show another pathology which might be the reason for lymphangiectasia and finally she was treated for giardiasis again and discharged.

Discussion

Lymphangiectasia is a rare disease and it can be classified as primary (4) or secondary (5) (due to the obstruction of gastrointestinal lymphflow, e. g. any pathohogy in the retroperitoneal nodes as lymphoma).

In our case the first small intestinal biopsy revealed no lymphangiectasia but only giardia trophosoites and later on in the course of the disease both of these pathologies could be seen in the same biopsy specimen.

This makes us believe that our patient is suffering from secondary lymphangiectasia and we can say that most probable cause for lymphangiectasia in this patient is giardiasis, because we were unable to show any other reason for secondary lymphangiectasia despite full medical investigation (abdominal ultrasonography, tomography, lymphangiography, barium studies of the entire gastrointestinal tract, etc).

Another distant possibility for the clinical picture is that both primary lymphangiectasia and giardiasis were present.

Giardia lamblia is a parasite which in ist cyst form can resist chlorine concentrations (0.4 mg/1) routinaly used for communitiy purification systems (6). Its transmission is thus via water or food (7) and is a big problem in areas with poor sanitation, among mentally retarded or homosexuals. Giardiasis is also frequent in individuals with immunoglobulin deficciencies (8) (especially secretory IgA), protein- calorie malnutrition and possibly achlorrhydria Giardia lamblia may cause minimal to severe mucosal injury which is frequently patchy in distribution. Mechanical blockage of the intestinal mucosa by large number of trophosoites competition for essential nutrients, altered jejunal motility with or without bacterial overgrowth, pancreatic or biliary dysfunction and organism-induced deconjugation of bile salts may be the reasons for diarrhea.

Our patient had several bouts of giardiasis. Her immune status was fine with normal T and B-cell funcctions, she had good personal hygiene and was mentally healthy. On the other hand she has a biopsy diagnosis of atrophic gastritis (autoimmune) with achlorrhydria and perhaps this was the reason for recurrent giardia lamblia infestations in this patient.

Conclusion

Giardia lamblia infestation is an important cause for chronic diarrhea. Giardiasis may be seen in healthy persons or ones with decreased immune response or possibly achlorrhydria. If the underlying pathology is not corrected same person can be reinfected again and again. Giardiasis when present for long periods of time may well cause secondary intestinal lymphangiectasia.

KAYNAKLAR

1. Barbieri D., De Brito T., Hashino S. et-al.: Giardiasis in childhood. Arch. Dis. Child. 45: 466-72, 1970.
2. G. Oberhuber, M. Stolte. Giardiassi: analysisi of histologicel changes in biopsy specimens of 80 patients. J Clin Pathol 1990; 43:641-643.
3. Ament ME: Diagnosis and treatment of Giardiasis. J. Pediatr 80: 633-637, 1972.
4. Yoram Bujanover, William M. Liebman, Joseph R. Godman and Michael Thaler. Primary intestinal lymphangiectasia. Case report with radiological and ultrastructural study. Digestion 21: 107-114 (1981).
5. H. Asakura, S. Miura, T. Morishita, S. Aiso, T. Tanaka, T. Kitahora, M. Tsuchiya, Y. Elnomoto and Y. Watanabe. Enldoscopic and histopathological study on primary and secondary intestinal lymphangiectasia. Digestive diseases and sciences, Vol. 26, No. 4(april 1981).
6. Jarroll EL Jr et-al0 Giardia cyst destruction: Effectiveness of six smallquantity water disinfection methors. LAm J Trop Med Hyg 29:8, 1980.
7. Pickering LK, Engelkirk PG: Giardia lamblia. Ped Clin North Am 35:565, 1988.
8. Ament ME, Rubin CE: Relation of giardiasis to abnormal immunodeficiency syndrome. Gastroenterology 62:216-226, 1972.