

GAY MEN-BOWEL SYNDROME: A REPORT OF PARASITIC INFECTION IN HOMOSEXUAL PATIENTS

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INTRODUCTION

In recent years, a variety of colorectal disorders have been recognised among male homosexuals.¹ In this report, the term homosexual behaviour is defined as any sexual relationship including orogenital, proctogenital or analingual sex between two or more males.

A wide variety of intestinal parasites have been recovered from stools of homosexuals. Amoebiasis has been reported as a common cause of diarrhoea in homosexuals.^{2,3} Its aetiologic agent, *Entamoeba histolytica*, is frequently found to be the cause of diarrhoea and crampy abdominal pain in travellers who have returned from areas where sanitary conditions are poor.⁴

Previous reports have shown that homosexuals were subjected to various types of infection. In this study, six patients were treated for acute diarrhoea due to *E. histolytica*. Of these six, three were foreigners currently employed locally and the other three were Malaysians. All six patients considered themselves to be homosexuals.

The purpose of this paper is to draw attention to the emergence of parasitic infections in the form of the Gay Bowel Syndrome.

PATIENTS AND METHOD

A full clinical history was recorded from six patients during their attendance at the Parasitology Clinical Laboratory, Universiti Sains Malaysia. Faecal specimens were obtained from these patients for parasitological examination.

Examination of faecal specimens

In all cases, three specimens were examined from each patient. Wet preparation of faeces in saline and in iodine were carried out. The preparations were screened for ova, cyst and trophozoites of protozoa. A modified zinc sulphate flotation technique⁵ was used to concentrate faecal ova and cyst. Faecal smears were then fixed and stained in trichrome for further identification of the parasites.

Patient 1

A 27-year-old male homosexual had a history of watery, non-bloody diarrhoea with abdominal cramps, fever and chills. Physical examination revealed no abnormality. He was treated with antibiotics (patient was unable to specify the antibiotic) for ten days after which he continued to show occasional loose stools for two weeks.

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On the day of examination at the Parasitology Clinical Laboratory he complained of loose watery stools mixed with mucus for the last four days with recurrent abdominal cramps and arthralgias of right and left ankles. Stool examinations on the first visit were negative and the patient continued to note loose stools and intermittent crampy abdominal pain. Examination of three consecutive faecal specimens over a period of one-week after the first visit showed *E. histolytica* cyst and trophozoites.

Patients 2 and 3

A 24-year-old male homosexual, an occasional male partner to the first case, was referred to the clinical laboratory by the first patient. This patient has or has had hay fever, gastrointestinal diseases and abdominal cramps. Persistent loose stool without blood and abdominal cramps for five months were his major complaints. Patient 2 had been on atabrine 100 mg b.i.d. for two weeks and metronidazole 50 mg q.i.d. and b.i.d. on two occasions for one week and ten days each. He started to improve during the last four months. Currently, he is not on medication. He had been in Costa Rica for two months sharing on apartment with a roommate who had a history of *E. histolytica* and *Giardia lamblia* infections.

Patient 2's other complaints were that his bowel movement had been better; less loose stools which apparently paralleled with decreased gay activities with his present roommate. He admitted that his roommate still had the symptoms of alternative diarrhoea and muddy stools. Patient 3 submitted two stool samples for examination. Patient 3 was negative for both *E. histolytica* and *G. lamblia*. Patient 3 was advised to submit at least three more consecutive stool samples for examination. Examination of stool revealed the presence of *E. histolytica*. The patient was treated with metronidazole.

A month later patient 2 and his roommate (patient No: 3) complained of abdominal cramps. Both patients were treated with metronidazole again.

Patients 4, 5 and 6

These are Malaysian homosexuals. Patients 5 and 6 are married to females but gay activity was an occasional practice. All patients had similar symptoms, such as diarrhoea, crampy abdomen and tenesmus. Faecal examination of all three patients revealed the presence of *E. histolytica*.

RESULTS

All patients had been investigated for other microbial infections and found negative before coming to the parasitology laboratory. All patients revealed the presence of *E. histolytica*. Though trophozoites were recovered in all patients, only four patients showed the presence of *E. histolytica* cysts. Severe diarrhoea and crampy abdominal discomfort were the common complaints.

Treatment

All cases were treated with metronidazole. Five of the six cases responded well to the treatment. The patients were given 750 mg t.i.d. for 10 days. All cases were confirmed negative by examining their faeces on weeks two, four and eight post treatment. The first patient did not respond to treatment with metronidazole. In this case an alternative treatment was instituted. He was treated with diiodohydroxyquin 650 mg t.i.d. for 20 days.

DISCUSSION

The Gay Bowel Syndrome is a recent designation in the medical literature to describe multiple and recurrent bacterial, protozoal and viral infections due to oral-anal and penile-rectal intercourse.^{6,1} The observed conditions often include amoebiasis, shigellosis, specific and non-specific proctocolitides, anorectal abscess and fistulas, adenomatous polyps, rectal trauma as well as anorectal venereal diseases and *Condyloma acuminata*.

A wide variety of intestinal parasites have been recovered from stools of gay men. The

presence of non-pathogenic parasitosis is a marker of faecal contamination and are correlated with frequent anilingus.^{7,8,9} Although protozoa such as *Entamoeba coli*, *Entamoeba hartmanii*, *Endolimax nana* and *Chilomastix mesnili* are classically considered as non pathogens, the heavy inoculum which is possible *via* direct oral-rectal contact might cause diarrhoeal symptoms in some patients. Two cases of chronic diarrhoea, possibly secondary to *Endolimax nana* infection, have been reported by Stauffer and Levine (1974). Further, *E. coli* has also been implicated with acute diarrhoea.¹⁰ It should be noted that the extent of the problem of the so-called non-pathogenic protozoa has largely been unexplored.

Amoebiasis is a disease among homosexuals which has not been clearly identified, though such an association was suggested by Most¹¹ and Kean.¹² The exact prevalence is difficult to estimate, since only patients with severe symptoms show up at clinics. However, from previous studies,^{3,12} it is clear that *E. histolytica* may be widely distributed among homosexuals. This study supports this observation and further indicates that *E. histolytica* may be a major cause of gay bowel syndrome in male homosexuals.

With regard to the actual mode of transmission, it is postulated that the routes of infection among homosexuals could possibly occur *via* oral-rectal contacts, rectal intercourse followed by oral-genital sex or through contacts with parts of body contaminated during fore-play with subsequent insertion into the mouth (Fig. 1).

Five of the six patients responded to metronidazole while one case had to be treated with diiodohydroxyquin. This treatment failure with metronidazole could be either due to the emergence of resistant forms of *E. histolytica* or to a complex array of host-parasite relationship and drug pharmacokinetics in this particular case. In such cases diiodohydroxyquin appears to be very effective. Though reinfection with *E. histolytica* is possible, it is rather unlikely because all patients had abstained from homosexual practice during treatment and at least eight weeks post treatment. One of the problem in *E. histolytica* infection is

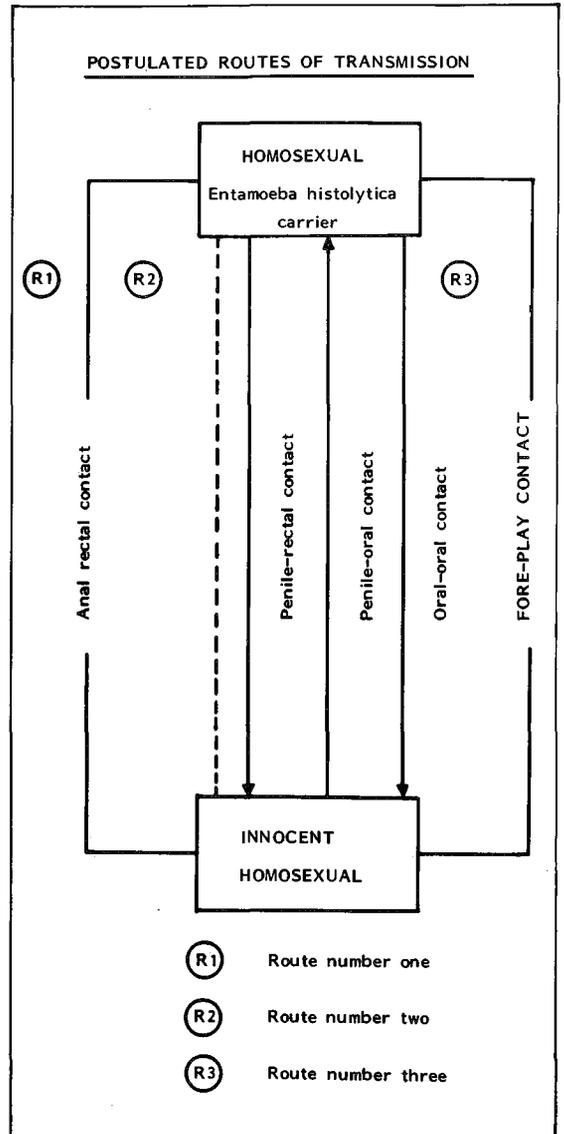


Fig. 1 Schematic presentation of the possible routes of transmission.

the existence of the asymptomatic 'carrier' state. Such a carrier state implies that once the agent is introduced into the homosexual community, a reservoir of infection will continue to exist even if all symptomatic patients are quickly identified and treated. As such the problem is more complex than it appears to be.

Many other intestinal pathogens have been associated with venereal transmission and sympto-

matic illness. Drustin *et. al.*,¹³ reported that 57% of patients who acquired shigellosis were homosexuals, who had not travelled outside the New York metropolitan area. Dritz and Back¹⁴ on the other hand noted an outbreak of shigellosis in the gay community of San Francisco. *Giardia lamblia*, like amoeba, infects man through faecal contamination of water; although it is mainly confined to the duodenal areas, a case of giardial proctitis was reported from England in a homosexual patient.¹⁵ Recently many more cases of *G. lamblia* infection among homosexual contacts have been reported.^{16,17,18} Although there was no *G. lamblia* infection found in this study, the possibility of such infection among homosexuals is always present.

Reliable statistics regarding male homosexuality in Malaysia are not available. The trends in the modern cities show that homosexuality is on the increase. Practising physicians should be alerted to the possibilities of parasitic infections in homosexual patients. On the basis of other reports and this experience, amoebiasis should be considered a venereal disease in the male homosexual population. As such it is important to obtain sexual history from all male homosexuals, to ensure treatment of contacts to prevent re-infection. In addition, all sexual contacts should also have their stools screened for bacterial pathogens.

Sexually transmitted diseases have been recognized as a major problem in gay populations. However, recent evidence has suggested that the medical profession needs to consider the possibility of infective syndromes including parasitosis other than gonorrhoea or syphilis as sexually transmitted diseases.

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