Bug Bugaboo

Before you get your intestines all in a knot, read this. Parasites are treatable -- if you know you have them.

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By his second bout of amoebas, San Francisco PWA Joe Hampton (name changed) was so familiar with the symptoms -- unmentionable in polite company -- that he gave his doctor the diagnosis himself. The painful intestinal cramps, gas, rotten-smelling stools, chronic fatigue and lack of libido all signaled a new infection. Since 1989, Hampton has had five encounters -- that's almost a long-term relationship -- with this same breed of parasite. And, he notes ruefully, the side effects of Flagyl (metronidazole), the standard antiparasitic medication, can be even worse. "After about five days, it really takes a toll on my liver," says Hampton. "I become debilitated and nauseated, and get a metallic taste in my mouth. Not eating makes the nausea worse, but I have no appetite, so I have to force myself to eat."

Lucky for him, Hampton has never suffered the diarrhea and wasting sometimes sparked by parasites and has always gotten rid of the stubborn infection. Not everyone, though, is so fortunate, as these critters can be hard on the system and tough to eliminate. So doctors have been experimenting with an array of treatments, both pharmaceutical and herbal. But of course you can't treat an infection until you become aware of it -- which is not as simple as it seems.

Annual Screening for a Good Gut

"Most people with parasites don't show symptoms, yet the organisms can still do hidden intestinal damage," says San Francisco AIDS specialist Jon Kaiser, MD. "And some people are just not that in touch with -- or don't want to talk about -- unusual bowel function." So Kaiser recommends that anyone with HIV get an annual screening. Of his own new patients, as many as 30 percent currently test positive for parasites. The culprit is battered immunity, Kaiser says, adding that "even an intact immune system will not always eradicate the problem."

UCLA gastroenterologist and AIDS researcher Peter Anton, MD, explains that in a healthy person, the intestinal lining is packed with B cells (which secrete antibodies) and T-cells (which direct the B cells' responses, among other activities). When these cells are depleted, parasites can proliferate, causing chronic intestinal inflammation and disease. Both Anton and Kaiser say that parasitic infections have decreased since the advent of protease inhibitors, as PWAs are better equipped to deal with foreign organisms. Anton notes, however, that CD4 cells "reconstituted" by antiretrovirals may not be able to identify parasites and direct B cells to produce antibodies until

after a new infection.

Corinne Furnari, a physician's assistant and certified nutritionist whose Manhattan clinic treats many PWAs with gastrointestinal (GI) problems, has found that particular foods and drugs can result in a prime environment for parasitic overgrowth. "In a healthy gut," she explains, "a very dense flora [made up of beneficial bacteria] promotes resistance to all types of pathogens. Disruption of this delicate floral population -- by broad-spectrum antibiotics that target *all* bacteria, by antacids that upset the pH balance, or by too much sugar that stimulates yeast overgrowth -- can cause the intestinal immune system to malfunction."

The most common U.S. parasites are protozoa, a class of one-celled organisms that has two subtypes: The more troublesome variety, such as *Cryptosporidium* and *Microsporidium*, are considered to cause opportunistic infections, as they primarily affect people with low CD4 counts; so far, there are only experimental treatments (see "At Last, A Cure for Crypto?" *POZ*, July 1997). The other category, encompassing parasites such as *Entamoeba histolytica* (Hampton's longtime amoebic partners) and *Giardia lamblia*, can affect people at any CD4 level; moderately effective treatments are available. (Multicelled parasites known as worms are rare here.) While not immediately life-threatening, all of these buggers trigger nutrient malabsorption, which can eventually lead to wasting and a downward health spiral. In addition, Kaiser says, parasitic infections can stress the immune system, activating resting CD4 cells and increasing HIV replication.

You contract all protozoan parasites in the same way -- via fecal matter. That's because parasites, as part of their breeding cycle, end up in human and animal waste. Sex acts such as rimming (oral-anal contact) are a frequent transmission mode among gay men, so using a barrier is advised. And travelers to countries with poor water quality should avoid drinking tap water or eating raw food washed in it. (Cooking will destroy parasites.) But even in the United States, precautions are in order: Don't drink from streams or lakes, as many contain unhatched parasites called cysts; be aware that an estimated quarter to half of all local drinking water supplies contain cysts; and if you have fewer than 200 CD4 cells, you may want to avoid salads and sushi when eating out.

Diagnosis? Pull up a Stool

It is important to remember that parasites are just one possible cause of GI problems. "Diarrhea may have multiple origins, requiring multiple diagnostic tools," says *POZ* Science Editor Lark Lands, PhD. "I've known PWAs who had a common parasite or two, an opportunistic infection, a lactose intolerance, an inability to digest fat and a food allergy. Until all of these were addressed, the diarrhea continued." According to Anton, items that would make parasites prime suspects include any known risk behavior, a CD4 count below 150 (even if later raised by therapy), waxing and waning of stool consistency or several months' use of immunosuppressant drugs such as prednisone, a steroid.

Definitive evidence of parasitic infection can only be found by analyzing a stool sample. But, according to Kaiser, accurate readings can be difficult to obtain. "I don't have faith that most labs

have the equipment or expertise to pick up parasites in a majority of cases," he says. Physician's assistant Furnari agrees: "You'll want to go to labs that specialize in parasite testing -- not general-purpose facilities." And, she says, "If you have symptoms, don't accept a negative result as definitive; go for a retest." To increase the accuracy of testing, many doctors recommend taking samples on three consecutive days and using the purging (laxative) method, which releases parasites lodged in the intestinal mucous. Scientists are now seeking to develop more reliable tests.

One trigger for testing can be the scatalogical clues available from self-monitoring. Acupuncturist Mark Frost, who has supervised the HIV program at the American College of Traditional Chinese Medicine in San Francisco, says it can be as simple as noticing changes in the daily number, consistency, color and smell of your bowel movements. "If it's a parasite, the onset can be somewhat sudden," he says. "Not instant diarrhea, but going from normal to abnormal within a week. And an awful odor, like rotten eggs or sulfur, usually suggests something that's not supposed to be there."

A Royal Flush Treatment Deal

In the treatment of parasites, Flagyl is officially the first-line therapy, designed to exterminate the critters. Frost calls this liver-toxic drug the "carpet bombing" approach, and Joe Hampton no doubt felt himself under a blitzkrieg during his 10-day regimen. Because more than half of the drug's users experience harsh side effects like Hampton's, Kaiser says, "I try to avoid Flagyl, keeping it in reserve if other drugs fail." He prefers easier-to-tolerate prescription drugs such as paromomycin (Humatin) or iodoquinol (Yodoxin), combining them if there is more than one type of parasite.

But antiparasitics have a significant failure rate, leading many health professionals to supplement heavy-duty pharmaceuticals with less toxic herbs that can slow or stop parasites, while minimizing drug side effects and supporting intestinal healing. Kaiser recommends black walnut hull extract; other practitioners use grapefruit seed extract, gentiana lutea extract, artemesia annua, quassia, garlic or goldenseal. Some of these can be purchased in combination formulas such as Para-gard, Gozarte and Udarte. Frost and Furnari even claim success with patients using herbs *alone* for six to eight weeks. And both during and after infection, Furnari recommends taking beverages mixed with bentonite (a clay preparation), flaxseed or psyllium seed husks that may help sweep out the parasites and other toxins. Frost suggests lactobacilli (beneficial bacteria) to help the intestines recover after the infection clears. And since treatment -- of any type -- does not always eradicate parasites (Kaiser reports as high as a 30 percent failure rate), many practitioners recommend retesting four weeks after completing a regimen. For those still infected, Kaiser says, the same treatment may work the second time or another therapy can be tried.

Disgusting but rarely deadly, these bugs still can't be swept under the rug. As usual, early detection and treatment are key both to resolve nettlesome GI problems and to prevent later complications. "Removing this significant stress from your immune system will allow antiretrovirals to work better and last longer," Kaiser says. "That's why eliminating parasites and maintaining excellent intestinal health are two cornerstones of living longer and healthier with HIV."