

## Short Note

# Parasitism and Pollution in Environmental hasbeen Increase

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The number of studies and papers about the interaction dynamics between parasitism and pollution in environmental hasbeen increase. Among the aspects investigated we found the combined effects of pollution on the health of aquatic organisms, effects of pollution on the presence and distribution of parasites. Environmental pollution is a concern worldwide. It may causes negative effects for various organisms, like humans, mammalian, aquatics organisms and all the ecosystem. Aquatic pollution is a problem in many water sources, like surface water from river and lagoons, ground water, spring waterand marine environments. Contamination of water resources, especially in regions with in adequatesanitary condition sand supplies of water, constitutes a risk factor for public health. Among water borne diseases, gastroentericones are the most frequent. Approximately, 19% of outbreaks in the USA are attributed to parasitic protozoans, especially species of *Giardia*and *Cryptosporidium* because of their wide distribution in the environment, high incidence and resistance to conventional chlorination treatment.

*Giardia*is a flagellate protozoan found worldwide. Isolates of *G. duodenalis* are classified into sevenassemblages or genotypic group sand those recovered from humans are included in the two largest assemblages (A and B), both with zoonotic potential. Molecular analyses of isolates of *G. Duodenali* sand other species of *Giardia* have established that the formeris a complex of species and demonstrate the need for revision of the taxonomy of *Giardia*. In humans, infection by *Giardia* hasbeen associated with a wide spectrum of clinical pictures, ranging from amild, self-limited enteritisto chronic, debilitating diarrhoeas, with steatorrhea and weightloss.

*Cryptosporidium*is a genus of parasitic protozoans that infect humans, fish, reptiles, birds and mammals. The first human cryptosporidiosis case was reported in 1976; however, only after 1981 were the seprotozoans recognized as pathogens of bovines, domestic birds, pet and wild animals, emerging as an opportunist protozoan in immuno-compromised patients. In

immune-deficient human individuals, infections caused by this genus may be characterized by watery diarrhoea accompanied by intense colic, epigastric pain, nausea and vomiting, anorexia and malaise. In some cases, the biliarytracts are involved in the process, which aggravates the symptoms, increases the tendency toward chronicity and makes treatment difficult. In some cases, this may lead to death of the patient.

In spite of various regulation sand control measures, a number of out breaks of waterborne *Cryptosporidium* spp. And *Giardia* spp. Havebeen reported world wide Studies are continuing on the detection and removal of protozoans in water sources by means of physical and chemical processes such as filters, radiation,coagulationor molecular techniques.

Many parasites organisms, like protozoan sand helminths, complete its lifecicle in the environment and could contaminated water and soil and some structures are soresistant that remainsviable in the environment for a longperiod. The monitoring of protozoan sand helminths in environmental samplesis a challenge and a importante way to verify the health sanitary condition of the study area. The parasiti corganisms in environmental are in very low concentrations, when nuclear material (DNA) issearched in a location, tracesare leftbehind. Therefore, high sensitivity, selectivity and precision analysis are needed to find small releases and over come the problem of environmental interferentes, like natural organicmatter, humicacid. In addition to the analysis, the amount of sampleis a importante factor in environmental monitoring, frequently a large amount of sample is necessary to ensure a reliable and verifiable analysis. Environmental Parasitology deals with the effects of environmental conditions and pollution factors on the occurrence and distribution of parasites. The analysis of the presence of parasites in environment, like was water bodies, soil and the investigation of possible contamination sources is important to study the parasite epidemiology and occurrenceon a population.

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