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Letter

Cryptosporidiosis and Colorectal Cancer

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Dear Editor

Colorectal parasitosis is of great significance in the tropical world (1), where several parasitic infestations can be seen. However, an interesting concern is the interrelationship between parasitic infestation and colorectal cancer. Of several parasites, Cryptosporidium spp. is widely mentioned. A high prevalence of cryptosporidiosis has been observed in cases with colorectal cancer (2, 3). In fact, the interrelationship was proposed a long time ago: Izquierdo et al. (4) were first to mention it in their observation: "Diarrhea caused by Cryptosporidium and colonic neoplasia". At the time, there was very little interest in this topic; nevertheless, the emergence of the HIV infection turned cryptosporidiosis into a common clinical problem and raised concern over the interrelationship between cryptosporidiosis and colorectal cancer. Shebl et al. (5) studied AIDS cases and noted: "Cryptosporidiosis was associated with rare colon squamous cell carcinoma..." Nonetheless, the exact pathophysiology has never been proved. Recently, Abdou et al. (6) studied an animal model and reported that the parasite might trigger cellular dysplasia. The exact pathophysiological process of the possible carcinogenesis in cryptosporidiosis is an important topic for further research.

Footnotes

Authors' Contributions:Sim Sai Tin came up with 90% of the idea, wrote, and approved the final paper. Viroj Wiwanitkit was responsible for 10% of the idea and approved the final paper.

References

- Hechenbleikner EM, McQuade JA. Parasitic colitis. Clin Colon Rectal Surg. 2015;28(2):79–86.
- Sulzyc-Bielicka V, Kolodziejczyk L, Jaczewska S, Bielicki D, Kladny J, Safranow K. Prevalence of Cryptosporidium sp. in patients with colorectal cancer. *Pol Przegl Chir.* 2012;84(7):348–51.
- Sulzyc-Bielicka V, Kuzna-Grygiel W, Kolodziejczyk L, Bielicki D, Kladny J, Stepien-Korzonek M, et al. Cryptosporidiosis in patients with colorectal cancer. J Parasitol. 2007;93(3):722-4.
- 4. Izquierdo J, Antunez I, Calderon MT, Perez Giraldo C, Munoz Sanz A. [Diarrhea caused by Cryptosporidium and colonic neoplasia]. *Rev Clin Esp.* 1988;**182**(7):393–4.
- Shebl FM, Engels EA, Goedert JJ. Opportunistic intestinal infections and risk of colorectal cancer among people with AIDS. AIDS Res Hum Retroviruses. 2012;28(9):994-9.
- Abdou AG, Harba NM, Afifi AF, Elnaidany NF. Assessment of Cryptosporidium parvum infection in immunocompetent and immunocompromised mice and its role in triggering intestinal dysplasia. *Int J Infect Dis.* 2013;17(8):593–600.

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