

# High association of intestinal parasites with cancer and organ transplant recipient patients in Turkey

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In healthy individuals, intestinal parasitic infections generally self-limiting, but it may cause severe complications such as persistent diarrhea and/or malabsorption in patients with immune compromising conditions (such as, undergoing chemotherapy, organ transplantation and AIDS). Hence, the main aim of this case-control study was to detect the intestinal parasites (*Cryptosporidium* spp., *Giardia* spp., *Entamoeba histolytica*, *Blastocystis* spp. and *Dientameba* spp.) with microscopic and molecular methods among the immune compromised group consisting of Cancer Patients (CP) and Organ Transplant recipient Patients (OTP) in comparison with Healthy Individuals (HI) in Turkey. The present study was conducted among 90 HI and different groups of immune compromised patients, including 57 CP and 33 OTP in Turkey. The overall frequency of any intestinal parasites was 17.2% (31/180) with microscopy and 51.7% (93/180) with PCR technique. The presence of intestinal parasites in CP was 24.6% (14/57) and 80.7% (46/57), in OTP was 18.2% (6/33) and 57.6% (19/33), in HI was 12.2% (11/90) and 31.1% (28/90) with microscopy and PCR techniques, respectively. Also, all parasite species were shown in Table 1 ( $p<0.001$ ). Table 2 was shown data that in the detection of parasites, the accuracy of the microscopy technique was analyzed in comparison to that of the PCR technique ( $p<0.001$ ) (Table 2). This is the first study performed in Turkish reporting the prevalence of 5 intestinal parasites among these groups. These results show that *Cryptosporidium* spp. and multiparasitism are strongly associated cancer patients but, further studies are needed to reach definitive conclusions about this association.

### Biography

Ozer Akgul has completed his PhD from Department of Medical Microbiology at Istanbul University and Postdoctoral studies from Istanbul Aydin University School of Medicine. He is currently working as Assistant Professor at Istanbul Aydin University School of Medicine. He has published more than 10 papers in reputed journals and has been serving as an Editorial Board Member.

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