Molecular Diagnosis of Microsporidia among Immunocompromised Patients in Kuala Lumpur, Malaysia.

Hassan NA1, Lim YAL1, Mahmud R1, Mohd-Shaharuddin R1, Wan Suaiman WOY1, Noui R1.

Abstract
Microsporidia are obligate intracellular parasitic fungi causing chronic diarrhoea, particularly among immunocompromised patients. The current method used for diagnosis is based on conventional microscopy, which does not differentiate parasites at the species level. The present study was carried out to identify microsporidian species in immunocompromised patients. From March 2016 to March 2017, a total of 289 archived stool samples were examined microscopically for microsporidian spores using Gram-chromotrope Kinyoun (GCK) stain. Positive stool samples by microscopy were subjected to polymerase chain reaction and sequencing for species identification. Based on microscopy examination, the overall prevalence of microsporidian infections was 32.2% (93/288: 95% CI = 27.1-37.6). Of these stool samples, 45 samples were successfully amplified and confirmed as Enterocytozoon bieneusi. No Encephalitozoon intestinalis was detected. Accurate identification of species might help clinicians to decide appropriate management strategies as dissemination risks and treatment response vary for different species, hence improving the management of microsporidian infections.

PMID: 30300215  DOI: 10.4267/ajtmh-17-2901

Full text links

Save items

Similar articles
Detection of Enterocytozoon bieneusi (Microsporidia) by polyt (Indian J Med Res. 2005)
[Prevalence of Encephalitozoon intestinalis and Enterocytozoon bieneusi in [Mikrobiol Biul. 2015]
[Review [Microsporidia: general characteristics, infections and laboratory diagnosis]]. [Mikrobiol Biul. 2005]

LinkOut - more resources