Abstract

Clinical epidemiology and pathogenesis of Cyclospora species was studied in 64 wild-trapped Cercopithecus aethiops at the Institute of Primate Research, Nairobi, Kenya. The monkeys were screened for Cyclospora parasites using conventional microscopy, examination of hot Safranin stained faecal smears, Cyclospora specific antibody responses and molecular characterization of DNA following nested Polymerase Chain Reaction (PCR) amplification. Efficacy of Trimethoprim-Sulphamethoxazole
therapy for Cyclospora positive monkeys was evaluated. Experimental *Cyclospora* infections were established by oral inoculation. Oocyst shedding was used to confirm establishment and duration of infection. Gross and histopathological characteristics were described . The animals remained
asymptomatic. *Cyclospora* parasites were identified in 41 (64%) of animals with infections mostly in male adults. Incubation period was 14-17 days, the duration of infection one to two months. A PCR product of 294 base pair was visualized, confirming *Cyclospora* species in the natural and experimental infections. *Cyclospora* specific antibody responses were recorded in positive monkeys. Response to treatment was evaluated by cessation *Cyclospora oocyst* shedding by D17 post-treatment and
decreased *Cyclospora* specific antibody levels. Relapse infections occurred in 33% of the treated animals but responded to second TMP-SMX therapy.
Pathological findings recorded were moderate haemorrhagic enteritis, parasites vacuoles in the enterocytes, mild lymph node enlargement,
lymphocytic infiltrations, focal necrosis and granulomas in the liver. In conclusion, the study demonstrated that AGM may offer a suitable model
for study of cyclosporiasis.