Intestinal Parasitic Infection in the Roman Mediterranean

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Paleoparasitology, the study of ancient parasites, has increased our understanding of human intestinal parasitic infection in the past. Aside from giving insights into past disease, paleoparasitology is also contributing to an understanding of the origins and spread of major human parasites that are still quite common in modern populations. Paleoparasitologists have made great contributions to our understanding of gastrointestinal disease in the Roman Empire, however, until recently the majority of our data came from Northern Europe preventing analysis of variations in infections across the Empire. This talk will present new evidence for parasitic infection in the Mediterranean region of the Roman Empire and discuss possible explanations for variations in species diversity found in Northern Europe compared to the Mediterranean region. Archaeological sediment samples from latrines, sewers, and pelvic soil from Roman period sites in Italy, Turkey, Serbia, Greece, and Cyprus were analysed using microscopy and enzyme-linked immunosorbent assay (ELISA) to detect ancient intestinal parasites. A predominance of faecal-oral parasites, including roundworm and whipworm, was found and this will be discussed in contrast to sites in Northern Europe where there is good evidence for a range of zoonotic species. Life cycle constraints of different species of parasites can be combined with historical and archaeological evidence for past environment, cultural practices, and social structures to begin to understand factors involved in parasite transmission in past populations. Explanations for the emerging pattern of parasitic infection in the Roman Mediterranean will be discussed with a focus on diet, medical treatment, and climate.