S Tanner, V Reyes-Garcia, V Vadez, T Huanca, WR Leonard, TW McDade, R Godoy, MO Aiello, and K Hicks. 2004. Anthropometrics and gastrointestinal parasitic infections among the Tsimane' of Bolivia. American Journal of Human Biology 16 (2) : 227

Abstract

Although infectious disease is recognized as a major selective factor, gastrointestinal parasitic infections are often overlooked. Such parasitic infections represent an important biological burden because they are frequently associated with undernutrition and other negative health conditions (e.g. Wilson et al., 1999). This study examines the relationship between helminthic parasites and anthropometric characteristics in the Tsimane' Amerindians of lowland Bolivia. Because previous research among the Tsimane' has found high levels of growth stunting (Foster et al., 2003) and anemia (Lindsay et al.,2003) in children, we tested whether the high frequency of stunting may be partly attributable to high rates of infection. Fecal samples, anthropometric dimensions, and lifestyle characteristics were collected on 225 individuals (103 males; 122 females) ranging in age from 4 months to 80 years. Microscopic examination revealed high levels of helminth infections with hookworm (Ancylostoma duodenale or Necator americanus) as the most common infection followed by roundworm (Ascaris lumbricoides). Infection levels are higher than those reported for most other rural S. American populations and suggest that infection is contributing to the high rates of growth retardation observed in the Tsimane'.