WHO CARES?: Examining the biological and social impacts of leprosy on adolescents in Medieval England through clinical and isotopic models of care.

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Examining the biological and social impacts of leprosy on adolescents in Medieval England through clinical and isotopic models of care.

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ABSTRACT

Leprosy is a bacterial infection, and although fully treatable, leprosy is commonly associated with negative social perceptions, stigma, and ostracism. Many historical sources cite similar reactions in Medieval England to justify these modern-day views, including a dominant narrative that expulsion and poor treatment was the primary means of medieval eradication. This research employs a novel, cross-disciplinary approach to examine aspects of the life course from adolescents (c. 10-25 years old) who died with leprosy to reveal biological and social impacts of the disease during the Early-Late Medieval transition (9th – 12th centuries AD). This transition is defined by dynamic cultural and population shifts, and runs concurrent with the increase of leprosy in England. The individuals analysed originate from the parish cemeteries of St. John at the Castle Gate (Norwich; 10th – 11th centuries AD) and the St. Mary Magdalen leprosarium (Winchester; 9th – 12th centuries AD). Amelogenin peptide extraction and multi-isotope analyses (strontium, oxygen, carbon, and nitrogen isotopes) determined biological sex, residential origins, and whole-life dietary profiles, which were combined with historical, archaeological, and clinical frameworks to nuance the particulars of these people's lived experience.

The results from this research suggest that the leprosy stigma, as we understand it today, was not present in pre-12th century AD England. Combined data indicate that care (in terms of respect and/or treatment) is evidenced in both archaeological contexts. The majority of adolescents were local to their respective communities and results also reveal the presence of local and non-local females buried within the leprosarium. Dietary isotope profiles evidence early life stress, a 'leprosarium diet' consistent with high-status monastic contexts, and metabolic disruptions likely due to the onset of leprosy. When fully contextualised, these results help to reveal a fuller picture of leprosy in the past using adolescents as a conduit for the biological and social milieu of leprosy in the Medieval period. This line of research is important in understanding and addressing present-day immunological susceptibilities, pathophysiological responses, social inequalities, and treatment of peoples with leprosy, and underscores the important contributions of cross-disciplinary bioarchaeological research to modern understandings of disease histories and dynamics.

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