



Research Article

Pre-Columbian Andean sickness ideology and the social experience of leishmaniasis: A contextualized analysis of bioarchaeological and paleopathological data from San Pedro de Atacama, Chile

Sara J. Marsteller^{a,*}, Christina Torres-Rouff^{b,c}, Kelly J. Knudson^a

^a Arizona State University, School of Human Evolution and Social Change, PO Box 872402, Tempe, AZ 85287, United States

^b Instituto de Investigaciones Arqueológicas y Museo, Universidad Católica del Norte, Calle Gustavo Le Paige #380, San Pedro de Atacama, 141-0000, Chile

^c Department of Anthropology, The Colorado College, 14 E. Cache La Poudre St., Colorado Springs, CO 80903, United States

ARTICLE INFO

Article history:

Received 28 September 2010

Received in revised form 14 February 2011

Accepted 16 February 2011

Keywords:

Mucocutaneous leishmaniasis

Radiogenic strontium isotopes

Mortuary archaeology

Social identity

Mobility

ABSTRACT

Sociocultural concepts associated with sickness can profoundly influence social processes and individual experiences of disease. Here, we consider the role of sociocultural beliefs concerning sickness in the construction of individuals' social identities in the pre-Columbian Andes. Paleopathological analyses reveal evidence of mucocutaneous leishmaniasis, a facially disfiguring infectious disease endemic to tropical lowland rainforests, in the skeletal remains of six females buried at Coyo Oriental and Tchecar Túmulo Sur, two Middle Horizon (AD 500–1000) cemeteries in the highland desert of San Pedro de Atacama, Chile. We use pre-Columbian Andean sickness ideology reconstructed from ethnography and ethnohistory as an interpretative framework for data from these individuals' mortuary contexts and isotopic analyses used to infer residential mobility. Our study demonstrates that consideration of sickness ideology in conjunction with multiple lines of bioarchaeological and archaeological evidence increases understanding of the social experience of disease at San Pedro during the Middle Horizon.

© 2011 Elsevier Inc. All rights reserved.

1. Introduction

Recent studies concerning the social experience of disease in the past reveal a wide range of variation in sociocultural definitions of, and reactions to, pathological conditions across time and space. Here, we assess the social experience of mucocutaneous leishmaniasis in ancient Chile. Using a pre-Columbian Andean sickness ideology reconstructed from Andean ethnography and ethnohistory as a theoretical framework, we present a contextualized analysis of paleopathological, biogeochemical, and mortuary data from two cemetery sites in the highland Chilean Atacama Desert. We propose that the social experience of leishmaniasis in these communities was highly divergent from the stigmatization demonstrated for individuals with disfiguring disease in many past and present societies. As such, we argue for consideration of sickness ideologies as a means to shed new light on the past experience of disease.

1.1. Mucocutaneous leishmaniasis in the present and in the past

Leishmaniasis is a disfiguring infectious disease observable in both present and past populations. Infection by *Leishmania* protozoa produces around 1.1 million new cases of cutaneous leishmaniasis around the globe annually (WHO, 2010). While most patients with cutaneous leishmaniasis present solely healing dermal lesions, non-healing mucocutaneous lesions may develop in the nasal septum and palate in a small percentage (~1–10%) of cases and can lead to involvement and severe destruction of the underlying facial bones (Aufderheide and Rodriguez-Martin, 1998; Berman, 1997; Davies et al., 2000; Dedet, 2002; Desjeux, 2004; Herwaldt, 2008; Lumberras and Guerra, 1985; Sabbaga Amato et al., 2007). Ninety percent of all cases of mucocutaneous leishmaniasis today occur in Bolivia, Brazil, and Peru (WHO, 2010).

Throughout the contemporary world, all forms of dermal leishmaniasis are generally associated with social stigma (e.g., Fernando et al., 2010; Kassi et al., 2008; Reithinger et al., 2005; Weigel et al., 1994; Yanik et al., 2004; Zerpa et al., 2006). Individuals afflicted with these visible lesions are said to have low self-esteem and high rates of depression and anxiety (e.g., García Guevara, 2007; Weigel et al., 1994; Yanik et al., 2004). Although transmission occurs via phlebotomine sand flies (Ashford and Bettini, 1987; Grimaldi and Tesh, 1993), sociocultural beliefs in person-to-person contagion are common and frequently lead to stigma, isolation, and/or exclusion

* Corresponding author. Tel.: +1 480 964 3525; fax: +1 480 965 7671.

E-mail addresses: Sara.Marsteller@asu.edu (S.J. Marsteller), ctorres@ucn.cl (C. Torres-Rouff), Kelly.Knudson@asu.edu (K.J. Knudson).

from marriage, work, or childcare (e.g., Fernando et al., 2010; Kassi et al., 2008; Reithinger et al., 2005; Weigel et al., 1994; Yanik et al., 2004; Zerpa et al., 2006). Reported exceptions to stigmatization of individuals with leishmaniasis are few, but do include indifference and respect (e.g., García Guevara, 2007; Weiss, 1961).

In many past populations, the social experience of leishmaniasis remains unknown. Mucocutaneous leishmaniasis is the most frequently observed type of leishmaniasis in paleopathological studies (for exceptions see Wright, 1994, 2008; Zink et al., 2006). The only published reports of this disease in the past come from South American archaeological skeletal and ceramic material. Extensive localized resorption in the nasal region diagnosed as mucocutaneous leishmaniasis has been reported in one female skeleton from 10th-century Arica, Chile (Allison et al., 1982), and in five (4 male, 1 female) skeletons from the 15th and 16th centuries at the site of Makatampu on the central coast of Peru (Altamirano Enciso and Marzochi, 2005; Altamirano Enciso et al., 2001). Two skeletons diagnosed with possible mucocutaneous leishmaniasis characterized by similar, but less severe resorptive lesions are reported from the southern coast of Peru: a male cranium lacking secure provenience data from Chaviña (Moodie, 1927, 1929) and a male from the 8th-to-12th century site of Chiribaya Alta (Lozada Cerna, 1998; Martinson et al., 2003). Mucocutaneous lesions have also been inferred from 2nd-to-8th century Moche ceramic sculptures from the northern coast of Peru (Einhoff, 2004; Golte, 2004; Heck, 2004; Urteaga-Ballon, 1991; Wells, 1964). As most of these reports of leishmaniasis focus largely on the identification and distribution of the disease, the sociocultural connotations and experience of mucocutaneous leishmaniasis in the past remain poorly understood.

1.2. *The social experience of disease and illness*

The social experience of disease and disability has recently received increased attention in studies of health in the past (e.g., Baker and Carr, 2004; Belcastro et al., 2005; Boldsen and Mollerup, 2006; Charlier, 2008; Cross, 2007; Eyles, 2010; Fay, 2006; Groves et al., 2003; Jeffreys and Tait, 2000; Metzler, 2006; Murphy, 2000; Papadopoulos, 2000; Roberts et al., 2002; Sledzik and Bellantoni, 1994; Tubb, 2000; Walker, 2009). Medical anthropological studies that have long focused on sociocultural factors influencing and influenced by disease in modern groups provide important theoretical concepts for studies of sickness in the past (Fabrega, 1999; Hahn, 1995; Kleinman, 1978, 1980; Young, 1976, 1982). Cross-cultural studies of present-day health systems demonstrate that understanding sickness and treatment in any society requires consideration of concepts of body physiology, explanatory models of illness, and the identities and roles of both the healer and the sick within the larger social structure (Fabrega, 1999; Hahn, 1995; Hughes, 1995; Kleinman, 1980; Kleinman et al., 1978; Snow, 1998; Young, 1982). Social processes influence concepts of disease, healing, and efficacy of treatment (Young, 1982). Explanations for and responses to symptoms can serve as adaptive means for understanding and controlling a problematic condition (Fabrega, 1975). In turn, socially constructed concepts of disease influence social processes. For example, “sickness episodes” can serve as “a useful vehicle for communicating and legitimizing changes in how social relations are distributed within a community” (Young, 1976:12). Additionally, sociocultural factors shape individuals’ perceptions and experiences of a disease or illness and the treatment sought and received (Fabrega, 1999; Good, 1977; Hahn, 1995; Kleinman, 1980; Kleinman et al., 1978). Studies of sickness in the past must therefore consider both the larger social processes and the individual experiences influencing and affected by conceptualizations of disease (e.g., Eyles, 2010; Metzler, 2006; Molto, 2002; Murphy, 2000; Pálfi et al., 2002; Roberts, 2002; Sledzik and Bellantoni, 1994).

Several attempts have been made to examine sociocultural concepts of sickness in the past. Utilizing social and anthropological theories of disability, many researchers have highlighted the difficulties in inferring social beliefs about disabled or infirm individuals from biomedical or archaeological evidence alone (Dettwyler, 1991; Finlay, 1999; Roberts, 2000). Although impairment or functional constraint may be determined skeletally, disability is socially defined, and conditions perceived as disabling by researchers might not have been disabling in past societies (Buikstra and Scott, 2009; Cross, 1999; Dettwyler, 1991; Eyles, 2010; Metzler, 2006; Roberts, 1999, 2000; Shakespeare, 1999). Ethnographic studies provide modern examples in which disease or impairment that would be considered disqualifying in Euro-American cultures is viewed with indifference or admiration in others. For example, a woman with cognitive disabilities in Mali is expected to hold a job and raise children (Dettwyler, 1994:34; see also Knüsel, 1999). The Hmong view epilepsy as a sign of divine chosen status (Fadiman, 1997:21). Shakespeare (1999:100) suggests that multiple types of resources besides the archaeological record—“historical, literary, mythological, ethnographic”—must be employed in order to move beyond researchers’ assumptions and modern constructs of disability and disease.

As part of a broader trend in bioarchaeology that emphasizes the salience of social identities to numerous larger anthropological questions (see Knudson and Stojanowski, 2008), several paleopathologists and historians have begun to address the importance of socially constructed concepts of disease and impairment in interpretations of the experiences of the sick in past populations. These researchers term socially constructed forms of disease, including all notions associated with any form of sickness, “disease culture” (Fay, 2006:191) or the “social model of disability” (Cross, 1999:9; Wheatley, 2002:197). Many scholars, for example, have analyzed behaviors, symbolism, and/or language in historical documents and depictions to determine the conceptualizations of sickness or impairment likely present in Europe during the Middle Ages (e.g., Belcastro et al., 2005; Boldsen and Mollerup, 2006; Eyles, 2010; Fay, 2006; Knüsel, 1999; Metzler, 2006; Pálfi et al., 2002; Roberts, 2002). Subsequently, these concepts may be compared to archaeological evidence, such as mortuary practices, to determine the variable impacts of such beliefs and attitudes on the experiences of individuals with leprosy and other impairments (e.g., Belcastro et al., 2005; Boldsen and Mollerup, 2006; Fay, 2006; Knüsel, 1999; Pálfi et al., 2002; Roberts, 2002). Similarly, for the purpose of investigating the history of disease (e.g., Grmek, 1989) or of public health (e.g., Horden, 2000), some historians analyze documents to reconstruct past beliefs about sickness. Due to the reliance of these approaches on historical texts, most studies focus on European contexts where written sources are available. However, when no historical documents exist, careful situation of paleopathological evidence for impairing conditions within the context of larger population patterns of skeletal indicators and burial treatment can enable a reconstruction of the effects of a condition on afflicted individual’s lived experience (e.g., Hawkey, 1998).

1.3. *Pre-Columbian Andean ideologies of sickness and treatment*

Attempts to understand the extensive bioarchaeological evidence of disease and medicinal practices in the Andes have placed little importance on sociocultural beliefs and behaviors that could have influenced the experience of the sick (see review in Verano, 1997). Although no historical documents are available in this region prior to the arrival of the Spanish in the early sixteenth century, the abundance of Spanish colonial ethnohistoric documents and modern ethnographic works provides a rich source from which to

Download English Version:

<https://daneshyari.com/en/article/101477>

Download Persian Version:

<https://daneshyari.com/article/101477>

[Daneshyari.com](https://daneshyari.com)