EDITORIAL

Podoconiosis: let Ethiopia lead the way

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The history of podoconiosis (endemic, non-filarial elephantiasis) is better described in Ethiopia then anywhere else in the world. EW Price's elegant investigations through the 1970s and 1980s described the epidemiology (1), ecology (2), pathology (3) and natural history (4) of podoconiosis among Ethiopian patients, and mapped the condition across tropical Africa (5-7). The Addis Ababa-based leprologist estimated 5% prevalence of the disease among subsistence farmers who live and work barefoot on the irritant red soil that covers approximately 18% of the surface area of Ethiopia (1-2). Histopathology indicates that colloid-sized silicate particles enter through the skin, are taken up into macrophages in the lower limb lymphatics and cause endolymphangitis and obliteration of the lymphatic lumen (3,8). Early symptoms commonly include a burning sensation in the foot and lower leg, while early changes consist of splaying of the forefoot, plantar oedema with lymph ooze, increased skin markings, hyperkeratosis with the formation of moss-like papillomata, and 'block' (rigid) toes. Later, the swelling may be one of two types; soft and fluid ('water-bag' type); or hard and fibrotic ('leathery' type), often associated with multiple hard skin nodules (4,9). Protection of the feet from the irritant clay soil through regular use of robust footwear is enough to prevent disease: podoconiosis has been eradicated from Europe simply through the use of shoes (10).

More recent research, also based in Ethiopia has described the current epidemiological, financial and social burden of podoconiosis. As in the 1970s, prevalence is approximately 5% in areas of irritant soil (11). In 2005, podoconiosis was estimated to cost a Zone of 1.5 million inhabitants almost $ 16m per annum as a result of lost productivity and medical costs (12). More than half the population in podoconiosis-endemic areas harbour stigmatizing attitudes to patients (13).

Despite this evidence of the large burden of disease, podoconiosis has been given little attention within Ethiopia or more globally. It is included in very few health professional curricula, and is largely ignored by national and international health policy makers. What can therefore be done to promote prevention and control of this entirely eradicable disease?

Happily, the answer to this question may come from the very country experiencing the greatest burden of disease: Ethiopia. The efforts of a local non-governmental organization based in Wolaita Zone (a highly endemic area) demonstrate that effective prevention, treatment and rehabilitation can be achieved in a sustainable, community-based manner to more than 30,000 patients per year. The Mossy Foot Treatment and Prevention Association (MFTPA) mobilize their most important resources, podoconiosis patients, by training them as Community Podoconiosis Agents. Once patients have demonstrated the ability to control their own disease through simple measures (careful foot hygiene, and the use of large-size shoes) they are trained to act as agents within their own communities, reducing stigma by holding meetings in churches, mosques and schools. They hold weekly clinics to show other patients how to improve their own disease and prevent it in their families, and actively seek patients in their communities. They assist the MFTPA in selection of patients for vocational skills training, microcredit schemes and distribution of subsidized shoes (also made by treated patients) to the neediest. The MFTPA is a living enactment of the Innovative Care for Chronic Conditions framework, a framework championed by the WHO in which the roles of community and

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community partners at both micro-and meso-levels are emphasized (14).

Ethiopia is uniquely situated in holding the key to eradication of this costly and highly stigmatized disease within its borders. The challenge to public health professional in Ethiopia is first to map the distribution of podoconiosis, and then to find ways of rolling out the model of care used by the MFTPA to affected Zones.

Conflicts of Interest

GD receives funded from the Wellcome Trust to do research into podoconiosis. She is also on the Board of the Mossy Foot Project, a charitable trust set up to raise funds for the Mossy Foot Treatment and Prevention Association.

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