NEUROLOGICAL LETTER FROM...

Guinea Bissau

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Guinea Bissau is a small country on the west coast of Africa, south of Senegal. One of the 10 poorest countries in the world, it depends largely on farming rice, palm oil, cashew, timber and fishing. Since a civil war in 1998 it has maintained a fragile peace, with one coup and rumours of others. The crippled economy and lack of infrastructure mean a high level of illiteracy, little tarmac on the roads and an infant mortality of 108 deaths per 1000 live births. The external debt for Guinea Bissau was estimated in 2000 to be \$941 million with approximately 88% of the population living on less than \$1 per day.

Health facilities for the average Guinean are scarce. The life expectancy reflects this: 45 years for men and 48 years for women. Most doctors are 'generalists' because the luxury of working as a specialist is not feasible. Even when diagnosis is achieved the symptoms often remain unalleviated. In neurological terms this means that those with Parkinson's disease do not receive dopamine, primary and secondary prevention of stroke is not attempted, intracranial haemorrhages and tumours are not detected or removed, epilepsy is poorly understood and often untreated ... the list goes on. But healthcare needs are not considered purely in these terms. For many Guineans, especially in the rural areas, discomfort or illnesses are interpreted as afflictions by supernatural agents. Unearthing the aetiology of illness involves an assessment of physical and spiritual disorder.

A short-term position for a neurologist arose in 2004 within the framework of a UK Medical Research Council (MRC) study

into HTLV-1 associated myelopathy – the MRC has worked in Guinea Bissau since 1989. This involved conducting daily clinics with villagers from an isolated community on the coast. Interest in the area was first stimulated when a French doctor working with commercial sex workers in Senegal noticed a high prevalence of HIV-2 infection (which causes more indolent, less aggressive immune destruction) in women originating from a particular Guinean community. It turned out that HIV-1 had a prevalence of 3%, HIV-2 approximately 8% and HTLV-1 6% of the adult population in this village where the MRC are now based. The MRC had also been working there to educate people about sexually transmitted viruses and provide clinical care, in addition to undertaking studies of retrovirus distribution and transmission.

During the research study, the neurological clinics revealed a high level of pathology. Injuries were caused by falling mangoes (ptosis and blindness), toppling from a palm tree (neck pain and pyramidal signs) and the use of a poorly fashioned walking stick (lesion of the deep branch of the ulnar nerve). In addition, the more familiar neurological ailments were prevalent: stroke, headache, Parkinson's disease, lower motor neuron facial nerve palsy, spastic paraparesis, and much visual loss from cataracts. Alcohol consumption was a likely explanation for some tremors and peripheral neuropathies. The lack of any laboratory diagnostic tests or radiology (save for malaria blood film and stool microscopy) meant an utter reliance on the clinical symptoms and signs for diagnosis. Although unsatisfactory in many ways, this forced upon the neurologist an attention to detail and analysis of clinical nuances perhaps overlooked in the propulsion towards investigations experienced in a well-resourced setting. Clinically it provided a fascinating experience. History taking was challenging due to a tendency for everyone to answer 'yes' to direct questions. Initially an outbreak of small fibre sensory neuropathy appeared

Carved wooden posts representing deceased ancestors. Photograph courtesy of Max Cooper.

A woman walking through the village after a rainstorm. Photograph courtesy of Max Cooper

to be emerging as the prevalence of 'burning pain in the feet' was strikingly high. It was only on delving deeper that it became clear that this affliction was more common after working in the hot sun and walking for miles. It affects the young and old and reflects the intensely physical lives that many lead. Musculoskeletal complaints are ubiquitous but it was astonishing that the man with the spastic paraparesis did not volunteer any symptoms in his legs (that were clearly weak and stiff), but instead was concerned about his intermittent benign tremor.

There was 100% attendance at the clinics but satisfaction was only achieved if a medication or two was dispensed. This 'alternative' medicine applied by the visiting doctor peacefully coexisted with the more traditional remedies often used. Islam and Christianity have hardly penetrated this society where the principal deities are the Ancestors and the Land. Expensive rituals occur at times of stress, involving libations of alcohol to deceased ancestors and earth spirits. Traditional healers are on hand to administer local herbs, poultices and hot vapours. When approaching these practices as an 'evidence-based' physician it often induces incredulity and a sense of despair at the appalling aseptic techniques. Taking a broader view, however, and beginning to explore the depths of such a culture, leads to an understanding that, at times, our world view seems blinkered and impoverished in comparison.