Neurological letter from Chad

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Chad is a landlocked country in central sub-Saharan Africa (figures 1–3). In 2015, the United Nations Development Program ranked Chad 185 out of 188 countries on the Human Development Index.1 Most of the approximately 14.5 million Chadians live in extreme poverty and deprivation; absolute poverty is expected to rise from 4.7 million people in 2012 to 6.3 million people in 2019.1 The life expectancy in Chad is just 51 years. Chad also suffers from so-called desertification from climate change, with large areas of dry land becoming increasingly arid, particularly in and around Lake Chad, which has shrunk 95% of its size in recent years with only modest recovery.1 2 In 2003, Chad became a petrol-producing country, and the current president is now in his fifth term of office.1 2 Long-term violence also affects Chad including intrastate conflicts. Four per cent of the population of Chad are refugees,1 many seeking asylum from recent wars in neighbouring countries, particularly in South Sudan and Central African Republic.

Almost nothing is officially reported on neurological disorders in Chad. Although Chad has eradicated poliomyelitis, it remains a high-risk region for reimportation of this virus from neighbouring regions prone to epidemic outbreaks.3 Many children remain at risk of a range of vaccine-preventable neurological diseases because of low vaccination coverage rates. Common neurological infections are cerebral malaria, meningitis, tuberculosis of the central nervous system and HIV/AIDS including opportunistic infections. The chronic consequences of these disorders, including motor disability among polio survivors, are also common. Given the rise of motorcycle and motor vehicle use, as well as heavy alcohol drinking, road injuries are increasingly prevalent. Armed conflict and youth and gang violence with knives and small weapons lead to injuries of the limbs and to peripheral nervous system damage. Common neurological conditions including stroke, sickle cell-related cerebrovascular events, epilepsy and neurological sequelae of herniated intervertebral discs are also common. There are very high numbers of young people abusing tobacco, alcohol and medication, leading to recreational polysubstance abuse with poorly understood consequences to the nervous system.

One unexplained phenomenon in Chad occurs every March and April. This is a very hot time of the year in Chad with ambient temperatures reaching above 45°C and even 50°C. Many girls and women aged 10–25 years begin to fall down in their classroom at school, and this occurs in different geographical regions of Chad. The spells last for around 30–120 min. It is uncertain whether this problem is due to epilepsy, nutritional problems, dehydration, has functional origins or is the result of other causes. Many people with the condition are taken to hospital, treated with ketamine or antiepileptic drugs, and fall asleep. Afterwards, they recover. There is no EEG facility to help diagnose who has epilepsy among them.

There was a demise of health facilities in Chad before 2010 due to violent conflict. Today, there are issues with patients’ families who may be violent towards doctors with knives, and demand rapid services from their doctor, prioritising the aggressor’s family members over other patients.
waiting to be seen. In Chad, each patient has to take care of himself or herself for accessing and paying for healthcare. Caisse Nationale de Securité (the national security fund) provides some free services, but very few patients can access it, and most payments are made by poor patients out of their own pockets. This is stressful for patients since they must also find food for their families. A CT scan machine is available, but the cost of a CT scan of the head without contrast is equivalent to US$125–180 (approximately 70,000–100,000 Central African Francs). There is one MRI machine in a private hospital, but few people can afford an MR scan, and there are no neuroelectrodiagnostic services anywhere in Chad.

There is a network of traditional healers throughout Chad who see neurological patients. Common approaches among traditional healers include using tree bark and boiling it for drinking, cutting of soft tissue of the forehead, prayers and baths. In severe malnutrition, a child’s uvula may be cut-off. Since the hospitals provide very little to patients, traditional healers are popular.

There are two neurologists, both Chadian, both working in N’Djamena, the capital city (figures 4–6). One is in private practice and was trained in Côte d’Ivoire and has practised in Chad for over 10 years.
The other is a neurologist who trained in Senegal and works in the national public hospital, also in N’Djamena. Both are nearing the age of retirement. The first author of this paper, Dr Sakadi, is going to be the third neurologist in Chad. At the time of writing, he is less than 2 years from graduation as a neurologist in the Ignace Teaching Hospital in the Republic of Guinea. Because Chad has no postgraduate training programmes, any interested medical student must seek training externally, usually in a francophone country. There are two teaching hospitals including one in N’Djamena and one in Abéché, where the working languages are French and Arabic.

Dr Sakadi is a Chadian, from the village Gounou Gaya, approximately 400 km southwest of the capital city. ‘I am eager to go back to Chad because otherwise, in the future, there will be no neurologists in Chad. My objective is to share Chadian neurological information around the world and to open a Department of Neurology. Such a department will help train new neurologists. I hope we will have 10 to 20 neurologists within the next decade. I know that there is a lot of work to do because young Chadian physicians usually do not want to continue training or to specialise in Chad. New physicians usually choose a job as soon as possible after graduation for financial reasons. I would also like to work with the media to educate the Chadian people on neurological diseases. My first aim is to teach neurology. Right now, there are few students to teach’.

In Chad, it is said: ‘Impossible n’est pas Tchadien’ or ‘Impossible is not Chadian’. Taken another way, ‘Everything is possible in Chad’. We believe neurology can shine in Chad when given the new ammunition of training and awareness.

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