Stroke in Madagaskar/Neurology in Africa

Prof. Steiner at teaching course of the 10th European Academy of Neurology (EAN) / African Academy of Neurology (AFAN) Regional Teaching Course EAN/AFAN (RTC) 24th – 27th October 2018, Antananarivo, Madagascar

“Fifty out of 100 patients who arrive at the department of Neurology at Antananarivo University Hospital are suffering from stroke”, said to Prof. Alain Tehindrazananrivelo (Ambassador of Madagascar, Representative of the African Union and former head of the department at the Department of Neurology) during the 10th European Academy of Neurology (EAN) / African Academy of Neurology (AFAN) Regional Teaching Course EAN/AFAN (RTC). 1 Most patients arrive too late for treatment or do never come to the hospital. This is because causative treatments like thrombolysis or thrombectomy - standard therapy in high-income countries – are not available in whole Madagascar. Many patients seek for help by local healers, because hospital stroke treatment appears as nothing is done for patients.

Stroke is the leading course of death and disability in the world with an oppositional development related to income:2 While mortality and disability are decreasing in high-income countries, it is increasing in low-income countries. 3 The most important and modifiable risk factors in sub-Saharan Africa are high blood pressure, diet low in fruits, and air pollution. 4 But there are important other neurological diseases that are critically undersupplied in sub-Saharan Africa, like central nervous infections (e.g. meningitis), epilepsy, or movement disorders.

To improve this situation, the EAN and the AFAN have started the regional teaching course (RTC) program in 2008. The 10th RTC took place in Antananarivo Madagascar with the support of other globally acting societies like the the World Stroke Society (WSC), European Committee for Treatment Research in Multiple Sclerosis (ECTRIMS), American Academy of Neurology (AAN), the International Parkinson Movement Disorders Society in collaboration with the University of Antananarivo and the Faculte de Medecine Antananarivo. These organizations support the RTC financially and also send delegates as experts for certain areas.

Prof. Steiner (Head of the department of Neurology at Klinikum Frankfurt Höchst and chairman of the Guideline Committee of the European Stroke Organization (ESO)) was sent as the
representative of the WSC and as an expert in stroke treatment. Together with Prof. Yomi

Ogun (Nigeria, President of AFAN) and Prof. Raj Kalaria (United Kingdom / Kenia) Prof. Steiner performed a one-day teaching course in stroke management and stroke related dementia. The course consisted of lectures on management of ischemic stroke, intracranial hemorrhages, subarachnoid hemorrhage and stroke related dementia, case presentations by participants and case discussions in small groups. Participants had to take a multiple choice exam at the end of the day. Focus points on the other 2 days of the program were epilepsy and movement disorders.

The 10th RTC was visited by 58 participants from 18 African countries. The course language was English. Participant and teachers not only discussed about neurological diseases and their management, but also about implication of epidemiological aspects and limitations of different health systems and ways to implement therapies that are currently not available but will probably have a large impact on improving health in African countries. There is a shortage of availability of decent imaging facilities, access to proper neurosurgical treatment and modern drugs used for the treatment of neurological diseases. In Antananarivo, there are six computed tomographies (CT) and one magnetic resonance imaging (MRI) machine. But, as written above, thrombolytic therapy as well as thrombectomy are not available.

Madagascar located opposite of Mozambique, which is about 500 km apart. Madagascar has a population of 30 million people, 5 million living in the capital of Antananarivo. The country is known for its production of Vanilla, as the habitat of lemurs which only life in Madagascar, and the repeated outbreaks of plagues. According to the WHO Madagascar spent 21 US$ per capita in 2015 (place 187 of 189, compared to Switzerland with 9818 US$, place 1).

References


Figures

Figure 1: Prof. Steiner giving a presentation during the 10th RTC in Antananarivo

Figure 2: Participants at the 10th from 11 African countries
Figure 3: Group work

Figure 4: Lemur – Lemur Park
Anatananrivo