ELECTIVE (SSC5c) REPORT (1200 words)

A report that addresses the above four objectives should be written below. Your Elective supervisor will assess this.

1. What is the most common neurological complaint in Tanzania?

The most common neurological complaint that I have seen on placement is loss of consciousness. This is commonly documented on the admission notes and a list of differentials are given. These differentials are always the same - Malaria | sepsis | stroke | hypoglycaemia | Road traffic accident + even a few falls from a coconut tree. Every patient on arrival is screened for malaria using a blood screen and Hb - The patients are often also given ALU if suspicion is high. They're also given broad spectrum antibiotics - ceftriaxone + ampicillin. They're also given dextrose for a presumed hypoglycaemia, even when there is no diagnosis of Diabetes. However often the cause is not fully identified. This is due to lack of investigations in the hospital - There is no ECG machine and definitely no CT scanner (or MRI. Also the patients family must pay for each investigation + treatment prior to receiving any help which often ends in unnecessary delays, and often by the time the family are around the patient's condition has changed. If the diagnosis appears to be a stroke there are two options - refer to Tanga or conservative management.

2. What are the limitations (compared to the UK) of providing appropriate treatment for neurological complaints in a rural setting in Tanzania?

There are many limitations, some of which I document below. First, the clinical officers who clark in the patients have very basic medical knowledge. I was surprised to see some of the differentials for presenting complaints. These differentials often stick. Second, the investigations available at the hospital are very limited - there is no access to CT scanners / MRI machines / EEG + basic xrays of the head are very hard to arrange - as such diagnosis are often from a combination of clinical judgement + basic blood test results (eg parasite count, Hb, HIV +ve, CD4 count). Whilst the doctors are trained to do lumbar punctures + the CSF can be analysed there are no available readers in the hospital. Third, treatment options are also extremely limited. HIV + TB treatment is free and government organised so first line treatment is readily available + widely used. For HIV there is also second line agents but beyond this no further therapeutics are available. However for other conditions treatment is more limited - they give phenobarbitone as first line for epilepsy and 10mg diazepam for psychosis. This is obviously very different to the treatments available in the UK. Forth, the doctor patient relationship is virtually non existent, doctors don't explain the diagnoses to patients and so there is limited understanding of the medical conditions, and thus the management. For example adherence to HIV medication is terrible. Fifth, there is mush stigma in the community to neurological conditions, people think the patient is possessed.

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3. what are the common neurological manifestations of HIV in Tanzania?

There are a number of manifestations. These include, but are not limited to, those discussed below. During my week spent on medicine on the male ward + ITU, I witnessed three cases of cryptococcal Meningitis. There was no lumbar puncture (India ink staining done to proove this, however the doctors were able to diagnose the condition on history, CD4 count and response to the appropriate antibiotic. Surprisingly treatment was the same as in the UK. Another common presentation is confusion of unknown cause. The doctors seem to treat this with antibiotics, antifungals + rehydration with the hope that the confusion resolves. In some cases it was apparent that actually the patients suffered from HIV associated dementia. Space occupying lesions are hard to diagnose due to the lack of imaging. However a number of presentations seen include seizures, focal signs and headache are probably due to toxo and are treated accordingly. Unfortunately if treatment doesn't work it often becomes palliative.

4. At the end of my elective assess how I dealt with the challenge of delivering health care with limited resources?

Prior to arriving in Tanzania I mentally prepared myself for a very different style of medical practise and resources. However in actuality I was still shocked. I felt very frustrated at a number of points in my trip. Often a patient was extremely sick and yet the diagnosis was still unclear - the lack of investigations available, and at times lack of medical knowledge resulted in an unclear picture of what was going on. This led to patients either receiving too many different treatments in the hope that one worked, or sadly, patients not receiving the care they need and unfortunately dying. I found this particularly distressing after a week on paediatrics - there a child went into respiratory failure but without appropriate airway adjuncts or a ventilator very little could be done. The pace of life was very different there. There are a very small number of doctors per patient ratio. At times I felt a sense of urgency, for example placing an NG tube in an obstructed surgical patient, and yet the culture + way of practising medicine is so much slower that there was a very long delay. Instead of a bag to collect the fluid we first had to use a glove and when this was full we placed the tube into a 2L empty water bottle. Definitely a memorable experience. I was fascinated to observe so many differences + yet also similarities, for example the medical students OSCE exams were similar to our own. I hope to spend more time in the future at a rural African hospital.