ENDOCRINOLOGY

Elective Report

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Burundi

What endocrine disease is seen most often in Burundi? How does this differ from the UK?

There is no research available on the MEDLINE database concerning endocrinology in Burundi. During my time in Burundi, I did not see any patients with endocrine conditions, however, my supervisor informed me that diabetes mellitus is probably the most common endocrine condition, probably followed by thyroid disorders.

In the UK, nearly one in twenty (4.26%) people have diabetes mellitus[1], which equates to around 2.8 million people in real terms. This figure is known to be increasing due to multiple factors including an increase in sedentary lifestyles and greater calorie consumption, leading to a swell in the number of people with type 2 diabetes mellitus, affecting even younger people. Diabetes is itself very closely associated with thyroid disorders, particularly hypothyroidism[2], with an estimated 13-14% of people with diabetes also suffering from thyroid disease.

It is likely that type 2 diabetes mellitus will also become more prevalent in Burundi as the country's life expectancy increases and levels of malnutrition decrease.

How are endocrine services organised and delivered in Burundi? How does this differ from the UK?

In Burundi, patients must pay for their healthcare up front. There are no general practitioners in the country so patients usually see the junior doctors (called "generalists") first, who on the most part tend to manage the patient without any specialist input. Specialist "endocrinologists" tend to be internal medicine residents with special interests in endocrinology. These specialists are few and far between and referrals to these specialists are rare. Therefore, endocrine diseases are poorly managed in comparison with the UK and are a huge source of morbidity and mortality.

In the UK, patients usually first present to a general practitioner who is familiar with their history and care to date. The general practitioner can then refer the patient on to an endocrinologist, where initial management is commenced. Once the endocrinologist is confident that the patient does not need any more specialist input, they usually then refer the patient back to the general practitioner for continuing management. Should the general practitioner feel the need to obtain further specialist input at any point, he/she could liaise with the endocrinologist involved at any point.

What is malaria? What causes it? What are the signs and symptoms? What investigations are needed to diagnose it? What is the management for malaria?

Malaria is one of the commonest infectious diseases in the tropics. The disease is caused by plasmodium protozoa, which is passed on by the female anopheles mosquito. There are four types of plasmodium species. Plasmodium vivax and ovale are relatively benign compared with plasmodium malariae and falciparum, which are responsible for around one million deaths per year worldwide.[3]

Malaria typically causes a flu-like prodromal illness with headache, malaise, myalgia and anorexia. This is usually followed by fever and chills, which can be accompanied by faints. Signs to look for on examination include anaemia, jaundice and hepatosplenomegaly. Malaria is diagnosed using thin

blood films, which look for the presence of the parasites and can be quickly viewed. Severity of the disease is assessed using thick blood films.[3]

Management of malaria depends on the plasmodium sub-species. Chloroquine is the drug of choice for benign malarias in most regions of the world. If plasmodium ovale is suspected, primaquine is given after chloroquine to treat liver stage and prevent relapse. In cases of falciparum malaria, artemisinins-combinations are best (WHO). Burundi is heavily burdened with falciparum malaria yet quinine regimens still predominate, most likely due to cost issues around alternative medicines as well as ease of availability of quinine.[3]

Recall a situation in which you felt 'out of your depth'. Explain why you felt like this and describe what skills/knowledge you would need to acquire to be confident of dealing with a similar situation.

I realised very quickly on starting my elective that hospitals in Burundi are very different from hospitals in England. On arriving at Jabe hospital in Bujumbura, I was given a tour of the mission run hospital, opened in 1995 during the most volatile period of the civil war. There were two wards, one for adults and one for children. There were about 40-50 inpatients, not including those patients who were still camping on hospital grounds because they had not yet paid their hospital fees.

My supervisor, Dr Euloge, was one of only three doctors working in the hospital. Crucially, he spoke English well enough to be able to explain patient histories to me. Sadly, he was very busy performing administrative duties and so was very rarely able to practice medicine. No one else spoke much English and so I tried to communicate with patients and staff in French. I found this too difficult in the end and after just over a week, I realised that I needed to look for other opportunities for getting involved with medicine in the country.

Over the following weeks, I met and shadowed a canadian orthopaedic surgeon working in a different mission hospital, I attended a medical conference and took the opportunity to provide basic medical services in a local orphanage. I took time to teach human biology in a congolese school and travelled to Rwanda where I visited one of the hospitals, spending some time in obstetrics. Perhaps most excitingly of all, I met some English doctors who had decided to write a clinical skills book aimed at Rwandese medical students and I was asked to write a chapter on respiratory medicine. I did so with relish and am now hoping to see my first publication.

My elective taught me that I needed to thoroughly research aspects of my training if I wanted to make the most of the learning opportunities. The problem with my planned elective wasn't that Dr Euloge was the only English speaker at Jabe hospital, it was that I hadn't investigated the hospital and its capacity to take medical students. If I had done this more thoroughly before going, I would have realised that it was not suitable. I have been used to organising things last minute but my experiences on this elective have shown me the importance of planning well in advance. Thankfully, I have also learned to be creative and jump at every opportunity for learning.

References

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3. Longmore M *Iet al.* Malaria. OHCM 7th ed. OUP. Oxford. P.382-384.