as a paediatrician with one medical officer to help me in the wards until such a post was created. What mattered was a second post in the country as there already was one in Penang. Once this was established, the pattern built up slowly in other states. Study awards for paediatrics were difficult to obtain as adult physicians laid claim to the few that were available. Through the kind offices of Dr J. S. Sodhy, a scholarship from Smith and Nephew was awarded to Chin Yoon Hiap to study paediatrics at Glasgow. S. C. E. Abraham obtained a British Council scholarship on my giving him the required reference.

On one occasion I asked our DG how many doctors went to seem him asking to be allowed to do more work. He shook his head but said nothing. I wanted permission to be allowed to visit the district hospitals and health centres. Objection was raised by the hospital authorities to the effect that I was to stay put in my hospital in case a VIP child fell ill. I felt trapped and failing in my duty as a paediatrician. I was unable to get rid of the constraints through lack of personnel, and the only solution was to wait for more paediatricians to qualify.

I wish to express my thanks to Tan Sri Din who always gave me a patient hearing. He had advised my colleagues always to hear me out as that would keep me quiet for three months before I again offered to tender my resignation. On one of my visits to the DG's office, he told me that the Minister wished to recommend me for an award. I replied that there was no need to do so as I already had the award I wanted given me years ago and that no other award would ever equal it. After some hesitation, I finally told him that the award was the KSM. He said he had not heard of it and wished to know who had given it to me. I replied, that I had given it to myself and that it stood for *Kerja Sampai Mati* (work till you are dead). His startled expression of utter disbelief remains deeply imprinted in my mind. It has been worth more than a thousand confrontations.

I was coerced into submitting this resumé of my random recollections by our President Anthony Toft, but having done so, I am glad. I would like to place on record my deeply grateful thanks to Dr Elaine Field whose guidance and encouragement led me to a meaningful career, also to my mentors, Sir Ian Hill, Sir Derrick Dunlop and their staff and to Dr Anne Lambie and Dr Anne Phillips whose friendship with me has deepened over the years. My gratitude also goes to Tan Sri Mohd Din, and to our DG, Datuk Paduka Saleha bte Mohd Ali, ex-President of the Malaysian Council of Child Welfare, to Dato' Dr J. S. Sodhy, and Dato' Dr Abdul Wahab, not forgetting Dr Param of Penang, President of the Malaysian Paediatrics Society who initiated my recollections. Last but not least, I am grateful to my patients, nursing staff, friends and all those wonderful people all over the world whose lives have touched mine.

I would like to end with a short poem by Walt Whitman

> It is provided in the essence of things
> that from any fruition of success,
> no matter what, shall come forth something
> to make a greater struggle necessary.

FIFTH YEAR STUDENT ELECTIVE: REPORT TO THE MYRE SIM BEQUEST COMMITTEE

Paediatrics and Politics in Malawi: A Harsh Reality

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Malawi, on my arrival in May 1994, was in the grip of election fever. The countrys first democratic elections took place on 17th May and ended the thirty-one years of rule by President Hastings Kamuzu Banda, now in his nineties and in poor health, but still able to draw over thirty per cent of the vote in spite of the often repressive way in which he had ruled the country. His replacement by Bakili Miluzi of the United Democratic Front heralded a mood of celebration throughout Malawi, and pledges were made by the new government to improve standards of living, education and health care. Malawi is one of Africa's poorer countries, and the capital for the sweeping changes proposed will not be easily found. The most notable change for the better has been an increase in freedom of speech and association, rights denied by fear under Banda's rule. The elections were carried out under international observation and took place without incident in a carnival atmosphere to the great relief of all concerned.

The population of Malawi is almost 10 million, 47 per cent of whom are under the age of 15. My elective in paediatrics was therefore guaranteed to be busy. Families tend to be large, and many mothers have lost at least one child to malnutrition. Health education at present is centred on prompt treatment of fever with Fansidar in the home to prevent death from malaria, ensuring that tuberculosis contacts are traced and that all children passing through hospitals or clinics are up to date with vaccinations. Immunisation campaigns have been successful against measles, which is no longer the principal cause of childhood death, with outbreaks being sporadic and usually limited. Over 80 per cent of the population is scattered throughout the countryside where there are higher rates of disease and less access to health care. Food shortages are a fact of life for the majority, and malnutrition, both marasmus and kwashiorkor, is common in Malawi's paediatric wards. The management of such children is often complicated by tuberculosis, parasitic infestations and HIV infection.

In common with most African countries, Malawi has an AIDS problem. Blood donors in Blantyre and Lilongwe were recently 35 per cent positive for HIV. Although few children are tested, up to a third of those in the acute ward at any one time in Lilongwe's hospital were thought to be infected, with implications for the child's parents and siblings. Fear and ignorance about AIDS are prevalent; the new climate of openness may help to overcome reluctance to discuss the subject, but doctors, while wishing to publicise the gravity of the situation, remain reluctant to broach the subject with individual patients or parents of affected children. The numbers of AIDS orphans is growing, and these children, even if uninfected, are more susceptible to further disease and disadvantage due to their vulnerable social situation.

Health care in Malawi, including drugs and surgery, is free in government hospitals, although many have private wards for those who can afford to pay. The government has so far resisted pressure from the World Bank to introduce

charges, as such a move would prove unpopular. Mission hospitals must charge a small amount to remain viable.

I was able to visit some of the small district hospitals near Lilongwe, where there are few medical staff. Until this year most have been run by VSOs or Dutch doctors, but now the first doctors to be partially trained in Malawi are to take over these posts. The implementation of this plan is proving problematic, and many such hospitals are currently staffed only by clinical officers, who receive sporadic visits from a doctor.

For the eight weeks of my elective I was based in Kamuzu Central Hospital, Lilongwe, a government institution with 450 beds, 220 of which were in the paediatric unit. This contained a nursery, surgical and acute medical wards, and wards for non-acute, malnourished, tuberculosis and Burkitt's lymphoma patients. KCH is a teaching hospital for clinical officers, who receive three years training and are then relied upon to provide first-line diagnosis and treatment in places where doctors are scarce.

Falciparum malaria is now the principal cause of childhood death in Malawi, as was evident in the acute ward, although this was the low season for the disease; the ward becomes much busier during the rains. Tuberculosis, malnutrition, respiratory infections, neonatal sepsis and meningitis were also common conditions. On one memorable occasion a five month old girl was admitted with a vague two week history of fever, with recent vomiting. She had notable enlargement of head circumference with separation of suture lines. At first she was thought to have post-meningitic obstructive hydrocephalus, but the anterior fontanelle was noted to be bulging asymmetrically, and 200 ml of pus was subsequently aspirated from the subdural space, a procedure which had to be repeated several times, with a resultant dramatic reduction in her head circumference. Such complications are not rare, as families often administer traditional medicines for several days before coming to hospital. This practice, combined with the long distances many must travel to reach a doctor, creates barriers to effective and timely treatment, and accounts for the advanced pathology so often seen in African hospitals. Meningitis patients often have a tar-like substance smeared on their heads in the midline, or a strip of hair shaved in the coronal plane, in the belief that this will limit the spread of illness. Scarification of the forehead is also practised.

Other interesting cases included a baby with subcutaneous emphysema following measles, and a six year old with widespread Kaposi's sarcoma, presenting as raised purple lesions all over her body. Rheumatic heart disease is common in Malawi, and as the only hope for the severely affected is expensive cardiac surgery in South Africa, the outlook for such patients is poor. Physical signs in these patients are rarely subtle, and one child may demonstrate a bewildering variety of murmurs.

Burkitt's lymphoma is a special interest of researchers in Lilongwe and Blantyre. Treatment régimes comprising cyclophosphamide, vincristine and methotrexate are being evaluated, and data is being collected on patients' social environmental and family background. The effects of advanced disease include blindness and paraplegia; early tumours, confined to the jaw, appear to carry a good prognosis if there is a compliance with treatment, but the difficulty of follow-up hampers accurate data-gathering.

The hospital has an ophthalmology ward, where I spent a short time. On one ward round I saw a man who, after losing his right eye in a bicycle accident six months previously, had developed some irritation in the socket. Drops were unsuccessful in producing a cure, and a skull X-ray was taken. This showed a piece of metal 4 cm × 1 cm embedded in the right maxillary sinus. It appeared to be part of a bicycle, and was rusty on removal. On the same ward round I saw a retinoblastoma, Duane's syndrome, symbleaphron following Stevens-Johnson syndrome, bilateral congenital ptosis, alternating exotropium, punctate keratitis, retrobulbar neuritis, trachoma, temporal arteritis, several penetrating eye injuries, some requiring enucleation, endophthalmitis, traumatic and senile cataracts, glaucoma, corneal ulceration, and a case of chronic sinusitis in a young man whose frontal sinus and orbital roof on one side had been destroyed by a pseudo-tumour leaving his right eye laterally deviated and displaced downwards.

Much of my time in Malawi was spent working on the following research project, suggested by my supervisor, Dr John Phillips, who had spent twenty-one years in Malawi.

An hypothesis in *The Lancet*[1] in March 1993 suggested that the Epstein-Barr Virus (EBV) may be protective against severe complications of falciparum malaria and a study was set up to investigate this possibility.

EBV infection is endemic in young children in many parts of Africa, including Malawi, and has a causative role in the aetiology of Burkitt's lymphoma, a rapidly-growing tumour of B-lymphocytes. There is current interest in the development of a vaccine against the virus, but if EBV were found to confer protection against cerebral malaria, there could be adverse implications for such a programme.

Sera from 82 children with cerebral malaria, severe anaemia, malaria with febrile convulsions, uncomplicated malaria and other diseases were tested for antibodies to EBV Viral Capsid Antigen IgG, the presence of which is indicative of past infection with the virus. Two commercially available ELISA kits and an immunochemical slide test were used to test each serum sample. The overall infection rate proved to be 86 per cent and no significant difference was found between the groups described, indicating that the severity of malaria experienced was not related to the presence or otherwise of EBV infection.

The elective provided rewarding and memorable experiences. These included the warmth of the Malawian people, recognition of the difficulties of providing health care to a scattered rural population, the reality of the scourges of poverty and AIDS, a people in a time of political change, the great variety of medical conditions and the opportunity to do research.

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