My Student Elective

Acumen in the Transkei

J D LAWRENCE

My first glimpse of the Transkei was from a height of 4000 m; my vantage point was a tiny nine-seater Beachcraft King aircraft owned by Transkei Airways. For miles below me all I could see was a mountainous, barren, dusty-brown terrain. (There is hardly any rainfall in the Transkei during the winter, I was to learn later.) I knew at the outset that I would be under-

rolling hills and valleys on the other three sides, it was a superb location for convalescence.

Why had I come here? I had difficulty in deciding where to spend my elective, and one problem was finance. The opportunities to study abroad are few and far between, and while one is young and relatively free of ties and constraints I believe it worth while to make the most of these opportunities. Secondly, I wished to gain practical experience and play a more active part than that traditionally granted to students in large teaching hospitals in the medical care of patients. These objectives were more than fulfilled by the end of my six-week stay. Finally, the Transkei offered the opportunity of working where clinical skills and acumen are of paramount importance because even basic medical investigations are unavailable. Thus I could experience working in an environment far removed from that of large teaching hospitals. Two years' part-time work as a cashier in petrol stations, a porter, a dustman, and an assistant at car auctions financed the trip.

St Barnabas Hospital is in the Ntloza region of the Transkei, but comes under the administrative jurisdiction of Libode. Formerly a mission hospital together with about 35 similar hospitals, St Barnabas was taken over by the State about four years ago. The Transkei was granted full independence on 26 October 1976. It has an area of about 42 870 km² and an estimated population of 1 750 000 Xhosas. The capital, Umtata, was founded in about 1860 as a small trading post on the Mtata river. The main buildings include the "Bunga" (parliament) built in 1929 and the town hall built in 1908. St Barnabas is a general hospital embracing a wide range of disciplines. It has about 260 beds and is linked with 11 out-station clinics.

During my stay, three full-time doctors were employed at the hospital, not including the medical superintendent. Thus each doctor had to be prepared to deal with whatever problems arose; this generalisation much appealed to me. The nursing staff, unlike the doctors, are local people. Midwives and auxiliary nurses can be trained at the hospital, and it is hoped that a school of nursing may be established soon.

The Anglican mission, at first only the church, school, and one-roomed hospital, was started in 1890 to serve an area called Pondoland. The people are called Pondos and are still primitive; they work at cattle raising and agriculture, but neither is enthusiastically pursued. There is no industry.

On my first full day of hospital work, I watched and then under supervision performed three circumcisions; young men are routinely circumcised on coming of age or before attending high school. Prophylactic antibiotics are given, as is customary with certain other operative procedures at the hospital. Thus I was already gaining the practical experience I sought.

I was granted full doctor status and could write prescriptions; within a short time I had a working knowledge of drug dosages and didn't need to flick through my *British National Formulary* every two minutes. Many drugs were available, and most were well tried, cheap, and effective. For example, part of the triple-

taking my elective in an underdeveloped part of the world, but the scene below made me feel wary. An hour after leaving the international section of Jan Smuts Airport, Johannesburg, and 36 hours after leaving Heathrow, I arrived at K D Matanzima Airport, Transkei, which is 15 km outside the capital Umtata.

After "scrounging" a lift into town, I managed to secure a two-month study visa from a new multistorey government-department building, which contrasted sharply with the older surrounding buildings and shops. I was fortunate in that a doctor from St Barnabas Hospital, my ultimate destination, was also in the building at the same time, and he gave me a lift to the hospital. A modern, two-lane main road took us 30 km out of town before ending abruptly. We then travelled along a dust track for a further 10-15 km, and I reached my destination. A lunch was prepared for me, and I was shown to my single-room living quarters, which were spartan but clean and tidy.

Well so far so good. My first impressions of the hospital gave rise to great relief. Unlike the mud huts of the surrounding neighbourhood, the hospital was brick built and freshly painted. Set in its own grounds and bordered by the road on one side and

Hessel Road, London W13

J D LAWRENCE, medical student

drug regimen used to treat tuberculosis, which is endemic in the Transkei, included streptomycin in preference to more expensive drugs used in Britain. The winter months, when I was there, are slacker, however, than the summer months (I wouldn't like to work there in the summer), and with most of the pharmacy budget spent there will soon be a shortage of drugs.

The hospital had one radiographer and one microbiology technician. Microscopy results had to be taken with a pinch of salt, and x-ray films were often of poor quality but did provide a much-needed back-up to clinical diagnosis. All other investigations were performed at Umtata General Hospital or failing that in East London, South Africa. Clinical acumen was thus of paramount importance, and we had difficulty taking accurate histories because of the language barrier. I managed to learn only a few words of Xhosa.

A central records office stored all x-ray films, and patients kept their own health and treatment cards. Hospital clinics are run daily. Each consultation costs 20c (10p), a considerable sum for local people, and therefore no consultation was deemed concluded until drugs had been prescribed (multivitamin tablets were a boon in this respect). Patients were of two types: the first was the old who still put much faith in local witchdoctors and attended only when disease processes were far advanced. A reciprocal agreement with the witchdoctors was used for such patients—when they had done all they could, the witchdoctors referred their patients to us and vice versa. The second group of patients were generally speaking younger and relished a visit to the hospital as a change from the routine pattern of life. These younger patients thus presented early in their illness.

Routine vaccinations were performed, particularly BCG, and antenatal and tuberculosis clinics were held. Emergency cover was provided around the clock, which meant many night duties for myself and the other doctors. Still I managed to earn a welcome R100 (£50) covering other doctors' night calls.

We saw a wide range of disease, and, although I encountered many diseases familiar from Britain (such as diabetes and hypertension), I was soon learning about diseases peculiar to the Transkei. I saw a surprising number of patients with cardiomyopathies. Cirrhosis was common, and the locally brewed beer was implicated in aetiology. Oesophageal carcinoma was sadly all too common and often presented late; palliative treatment was all that could be offered to these unfortunate individuals. Again the beer was suspected of being the causal agent. (I never managed to sample this adulterated alcohol—unfortunately or fortunately.) Disease incidences are difficult to assess as population registers are not kept and neither do individuals keep note of their age.

I saw an interesting condition referred to locally as *ainhum*, which affects the toes of children: a fibrous band progressively encircles the affected toe, usually the little toe. Fibrosis extends throughout the toe, which eventually breaks off; the condition is bilateral. Medical intervention is rarely indicated as the condition is usually not painful and is not amenable to treatment. In those cases where pain is a feature, surgical amputation, with complete relief of symptoms, is performed. Patent metopic sutures (sagittal sutures in the frontal bone) of the newborn were often encountered in the obstetric department. Kwashiorkor was almost of epidemic proportion; treatment here included education of parents.

Surgery was performed in two theatres; one in outpatients. Many caesarean sections were done because of the high incidence of cephalopelvic disproportion. Appendicitis and some other gastrointestinal disorders (Crohn's disease, ulcerative colitis, etc) were conspicuous by their absence. I myself performed innumerable gynaecological operations and circumcisions; and my ultimate aim, the chance to perform my first caesarean section, was realised towards the end of my stay under the careful supervision of the medical superintendent, a surgeon specialising in plastic surgery. Most surgical procedures were performed under Ketalar anaesthesia; specialised anaesthetic

Children in the Transkei.

procedures were generally not available, although an anaesthetist has recently joined the team.

Throughout my stay I was exceptionally well treated, well fed, and well looked after. I spent my evenings studying (pathology finals looming unfortunately), and playing tennis until 6 pm, when darkness would descend with great rapidity. I managed to spend two weekends on the nearby Indian Ocean coast, where there are pleasant, tranquil, and unspoilt beaches in a sparsely populated region (Hlulikeka). Mail took between eight days and three weeks to arrive, but was very welcome—even copies of the *British Medical Journal*, which were kindly forwarded from London by my colleagues.

I learnt a great deal about the running of a hospital and administrative work, and also gleaned an insight into the running of an independent State in South Africa. My final 12 days were spent on a whistle-stop tour of South Africa. I visited the University of Cape Town during the celebrations of its 150th anniversary, and this enabled me to learn something of South African medical practice as doctors from the nearby Groote Schuur Hospital were taking part. Finally, five days on the beach at Durban gave me the opportunity of writing this article. The weather was fine; the elective was memorable and much recommended.

The ingestion of nitrates is said to cause gastric carcinoma.¹ What implications has this for sufferers from angina pectoris, who may take glyceryl trinitrate frequently?

Carcinogenic nitrosamines may be formed in the acid environment of the stomach by the interaction of secondary amines and nitrite. Some food constituents and many drugs are secondary amines. Nitrate in drinking water, foodstuffs, and saliva may be converted to nitrites by bacteria, and thiocyanates in saliva catalyse this conversion. The nitrosamines that can be formed by such interactions may be carcinogens for various body sites including the stomach. Nitrate is likely to be released from glyceryl trinitrate in the stomach, so that taking such tablets might increase the risk of nitrosamine formation. So many other variables, however, such as the presence of secondary amines in the stomach at the same time and the pH of the stomach contents, affect whether nitrosamines are formed that one could not assume that taking glyceryl trinitrate tablets increases the risk of any form of cancer. Sensible precautions against nitrosamine formation for a patient taking glyceryl trinitrate would be, firstly, to eschew as far as possible, other drugs that are secondary amines, or at least not to take them at the same time as glyceryl trinitrate, and, secondly, it would be as well to consume plenty of vitamin C since ascorbic acid inhibits nitrosamine formation in the stomach.

¹ *J Nat Cancer Inst* 1979;62:9.