

Medical Electives Report

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Arranged by Gorkha District Health and Educational Development Scheme

Following a pleasant and uneventful twelve hour flight, we arrive in Kathmandu, Nepal. Nepal is extremely diverse with respect to both landscape and culture. This beautiful country ranges from the snow topped Himalaya which boast many of the worlds highest peaks, including Mount Everest at 8848 metres and rising, to, in the south, The Terai, a lowland flat terrain containing Royal Chitwan National Park, home to the Asian elephant, rhinoceros, crocodiles and the elegant Bengal Tiger. Settlements go from untouched, rural mountain villages, where people live without running water or electricity in their homes, to the hustle and bustle of Kathmandu, where cycle rickshaws and temples lie side-by-side with five-star hotels and internet cafes. This diversity is no less apparent in the people, who despite vast differences in cultural origin and religion, live in relative harmony. This variety all leads to an exciting base for a medical elective.

The spectrum of healthcare in Nepal matches that of the terrain. Kathmandu is home to several fully equipped teaching hospitals akin to those in the western world. It is here that the doctors of Nepal obtain MBBS. The structure and standard of training is similar to the UK. For administration the country is subdivided into districts, analogous to English counties. Each of these sustains a small district hospital with basic healthcare facilities, offering both outpatient and inpatient services. Several outreach clinics also exist, funded by government and non-government organisations (NGO), these aim to reach those people who live in the more isolated communities.

The base for our elective was Gorkha District hospital. Gorkha is one of the largest districts in Nepal situated North-West of Kathmandu. It is infamous for producing the first Gurkha soldiers who served in the British army. It is also home to the King who united Nepal into one Kingdom. Despite this historical significance Gorkha town and district remains undeveloped. Family homes in Gorkha do not have running water or sewage systems. People must wash in the street, collect drinking water from taps and carry this to their homes. The way of life and lack of basic hygiene facilities account for many of the health problems in the area.

The hospital is a small, two-ward institution, which is quite large by Nepal's standards. Each ward has eight beds, although one is designated female and the other male this is flexible as circumstances allow. In the inpatient block there is also a small nurses station, toilets, one sink with running water and a kitchen. There is a room for deliveries and a small theatre for minor surgery under local anaesthesia. The outpatient building includes a clinic room, a treatment room, registration and a pharmacy. There is a small laboratory where microscopy of the urine and stool can be performed. The sputum can be examined for acid fast bacilli and blood tests include full blood count and blood film for Malaria parasites. There is a working x-ray machine, but the light-box to view these and the Electrocardiogram machine are currently in a state of disrepair. Unfortunately, all equipment has to be purchased in Kathmandu, given the state of the infrastructure of Nepal and the somewhat reckless driving, such apparatus rarely makes its journey to Gorkha in one piece!

The hospital staff comprises one qualified doctor, although there are three posts at the hospital, three "paramedics" work as doctors, despite their limited training. There are also two nursing sisters, several Community Medical Assistants (CMA) and CMA students, administrative workers, domestic personnel and a laboratory worker. All work very hard to keep the hospital running, they are committed but have limited training and facilities. We were very impressed with the clinical skills and the ability of the staff to use clinical information to obtain a diagnosis, with few investigations and no expensive equipment available to them.

Medicine in Nepal is seasonal, we attended the hospital during the harvest time and thus the hospital was quiet and the wards, which we were told in the spring have patients on the floor and in the corridors, were relatively empty. As many people in Nepal are dependant on farming, they will not visit the hospital during harvest unless it prevents them from working. Nevertheless the daily activities of the hospital continue and we saw a great deal of interesting cases.

Our day began at nine thirty with a ward round led by Dr. Bikash. The paramedic would present any new cases that had been admitted and the diagnosis and management of the patients was discussed. This was an excellent learning experience, we were able to examine all the patients on the round and the Doctor had time to teach us relevant topics. Many inpatients were suffering from infections of various kinds. Respiratory infections included Tuberculosis and acute exacerbation of chronic obstructive pulmonary disease (COPD). COPD is common in Nepal, many people do smoke heavily since cigarettes are extremely cheap even for the poorest in the community, this is compounded by the presence of open fires with no chimneys in almost every home. Women spend a large proportion of their day cooking over wood or kerosene fires. The simple mud-homes contain one large room and the whole family, often including the goats and chickens, sleep close to where the fire has been burning all day. These respiratory illnesses were managed in much the same way as cases in the UK, although the length of stay was longer as the doctor is all too aware of the living conditions at home.

Lack of safe drinking water and inadequate sanitation, result in many admissions for gastrointestinal infections. Patients were admitted with viral and bacterial gastroenteritis, they were frequently very dehydrated. Treatment with intravenous fluid was sometimes required, oral rehydration was often with rice water rather than oral rehydration solutions, this is equally effective, is well tolerated, is easily available at home and one can be sure that the water has been boiled. We were very interested to see a case of suspected Enteric fever, we caused the doctor great amusement by recounting the textbook presentation as we have never seen a case before, he has found in his experience that the diagnosis, based on the clinical picture, is not as easy as the books would lead you to believe!

Many of the mountain village people spend their days carrying loads along very narrow and treacherous paths. As a result several of the admissions followed "A fall from a great height!". These people had various fractures and minor cuts and abrasions. Since these individuals live several days walk away from the hospital, malunion was very common. As they are the poorest people in the area, they will never be able to go to Kathmandu to see an orthopaedic surgeon for correction. Another poignant accidental injury was that of a man in his forties with epilepsy who could not afford to buy anticonvulsant medication. He had a seizure and fell into the fire, he sustained a large burn to his abdomen. This was difficult to treat since he could not afford any medication and had only the most basic dressings and antibiotics that the hospital could prescribe for free. We were told that this was not his first admission and was certainly not his last. Another memorable case was of a very sick little girl in whom the diagnosis was unclear. She was thought to have nephrotic syndrome although the cause was unknown. She was painfully thin yet her

abdomen was very distended with ascites and she had pitting oedema to her thighs. All investigations were drawing blanks, and as a result she had to be transferred to Kathmandu for further tests.

Gynaecological admissions included both threatened and inevitable abortions. Given the malnutrition, poor hygiene and lifestyle this is much more common than in the UK. We were very pleased however to see the excellent range of contraception available. The nurses run a women's health clinic where contraceptive options include condoms, coils and hormonal implants. Dr. Bikash also performs male and female sterilisation. We were also pleasantly surprised that most of the local women give birth under the nurses supervision in the hospital. This way both mother and baby can be monitored, although sophisticated equipment like that in the UK is not available, a fetoscope (Pinard) is used to listen to the child's heart rate and sisters experienced hand to assess the uterine contractions. While we were at the hospital all the deliveries were vaginal, although caesarians may take place if necessary.

In the outpatient department, a walk-in clinic was held where a range of medical conditions were seen, more akin to General Practice in the UK. It took place in one small room where the doctor and two paramedics would see a patient each. Also in the same room were three CMA students, ourselves and several of the patients waiting to be seen! There was a small examination couch at the back of the room with a very thin curtain to screen this from view. Given that people walk for hours or days to be seen by someone who may not even be a qualified doctor, in conditions that offer absolutely no privacy, you begin to feel very ashamed of how we complain in the west. People in Nepal are very tolerant of this sort of thing and are not as bothered by lack of privacy as we are.

Each patient has to register and pay a fee of seven rupees (equivalent to around seven pence) before they can be seen. Nevertheless, while we were there, more than one patient could not afford to pay even this small amount and the doctor was forced to see them "unregistered" and prescribe to them only one of the limited selection of drugs available free at the hospital. Normally when a medication is prescribed, which the doctor and the health care workers did, the patient or their family would have to go and buy this from one of the surrounding pharmacies. Not only is the range of free drugs available small but the stock of these often runs very low. This is also the case with dressing which are so invaluable, so the patient would have to go and buy these and then return so that the nurses could apply it. The service of free medications is however quite a new one, as is the presence of a hospital cleaner and someone to serve the food, as in most hospitals in Nepal the relatives do much of the care for inpatients.

In the outpatients department (OPD), the patient sits on a small stool and tells the health care worker their complaints. It is usually here that a brief examination is performed in full view of those in the room! The consultation is written down in English, the details are also recorded in a large logbook by one of the CMA students. We encountered a wide range of conditions in the OPD. Again infections and minor trauma played a prominent role. Dermatological presentations were frequent. Given the impoverished living conditions and poor hygiene, Scabies was very common. Often it was virtually unrecognisable, left until it was very extensive with secondary bacterial infection superimposed. Scabies is a seemingly easy but actually a very difficult problem to manage. It is hard to persuade the Nepali that they must treat the whole family, even those without a rash and it is impossible to simply wash all clothes and bed linen in the washing machine!

The children of Nepal are as tolerant as their adult counterparts. It was extremely unusual to witness a child crying despite quite obvious suffering. We saw one eight year old girl with

extensive burns to her leg which had been left untreated for days, she was barely whimpering. It was difficult to assess tenderness in a child with a suspected fracture since most would barely flinch, subsequent x-ray would demonstrate an obvious break. We saw two children with large tense abscesses, one on the buttock and the other behind the knee. Both of these children howled terribly when they were examined, testament to how painful a tense abscess is. Ear infections were an extremely common presentation at the OPD. At first we were horrified at alarming regularity with which antibiotics were prescribed for this and other minor complaints. However when you recall that often these patients have walked days to see a doctor, you can not say "take some paracetamol and come back in a few days if it hasn't improved", this is the doctors dilemma in Nepal. I don't think that the situation is eased by the attitude of the patients, Nepali insist on the doctor examining them with a stethoscope, even if it is irrelevant to the presenting complaint and they are only happy to leave the doctor if they have a prescription in their hand.

Another paediatric condition that was very interesting for us to see was Measles. Three children came with a fever, cough, coryza and a rash in the space of two days. The vaccine available in Nepal, but these children had obviously missed out on the program. Nepal actually has a very good vaccination program While we were in Nepal there was a National Polio Immunisation Day. Polio has been virtually eradicated in Nepal, however there are still cases in neighboring countries. On immunisation day a march through the town served to remind everyone that they must take their children to one of the several health posts in order to receive the vaccination. This and other programs have been very successful in Nepal. We were also involved in the march for World AIDS day. The paramedic explained to us that this years slogan; "Men make a difference", was quite appropriate in Nepal since it is men that can make a difference in this male dominated society. On the parade we carried banners through the town and distributed condoms to the surprised local men on the street. Although we tried very hard, we were unable to say the chant that the Nepali said on the march, even at the end of hour long parade!

Another condition that we had previously only encountered in textbooks was Leprosy. Although rarely seen in the UK, Leprosy is still endemic in some parts of the world. We saw one young man who was a soldier, he came complaining of areas of numbness on his leg and thigh. On examination he had several hypopigmented, anaesthetic patches of skin on his lower limbs and sacrum. The doctor felt quite sure of the diagnosis, and explained that the condition is quite commonly seen in Nepal.

A much more frequent complaint in the OPD was of gastrointestinal upset. Infections included Amoebiasis, Giardiasis and nearly every stool sample contained at least one type of worm infestation. Not only the Nepali suffer from these infections. Some volunteers from the UK who were working locally, also contracted Giardia. When they had to explain to a room full of people that they had experienced diarrhoea and rectal bleeding, they were obviously very embarrassed, this reminded us how lucky we are at home. One of the most excellent facilities available at Gorkha hospital was the instant stool microscopy service that was available. This enabled the correct antibiotics/antihelminths to be given immediately for many infections.

Another regular visitor to the OPD were the people who spend all their days carrying heavy loads on their backs in baskets secured by a strap around the forehead. Many were suffering from lower back pain and arthralgia of hip and knee joints. This was almost certainly degenerative changes secondary to a life of weight bearing. Pain relief in this situation was extremely complex since these are the same class of people that smoke heavily, drink a lot of alcohol and eat two meals a day which are often quite spicy (Given the living conditions the incidence of infection with helicobacter pylori is almost certainly high in Nepal, but most people can not afford investigation

and treatment of the bacteria). As a result of these factors peptic ulcers and gastro-oesophageal reflux were extremely common, making these patients unsuitable for non-steroidal anti-inflammatory medications. This was another daily dilemma for the doctor in Gorkha.

Whilst we were at the hospital a post-mortem was carried out on a man who had fallen down a steep hillside. The aim was to determine the cause of death and rule out any foul play. Although the doctor was present, he did not carry out the autopsy. Wearing a pair of washing-up gloves and holding a rusty scalpel blade a local man carried out the examination. The man in question had suffered a broken leg and died following head injuries. His spleen had not ruptured and there was no damage to any major thoracic or abdominal vessels. In order to determine whether or not his skull was fractured, the assistant would strike the cranium with a large metal hammer. If the resulting noise was a "pure note" then the skull was intact! Post-mortems seemed to be quite a social occasion, with twenty-seven living people present. Half of these were hospital staff, the remainder were comprised of male friends and family of the deceased. The post-mortem room itself, was no more than twelve by ten feet and contained a large concrete table.

So what have we learned from our experience in Nepal? Most obviously we were lucky enough to see a wide variety of disease, some of which we would see infrequently in England. More importantly we were able to learn some more poignant messages. Even though countries like Nepal lack the facilities to perform investigations that we are able to request readily in the UK, the medicine that they practice is no less informed. So much information can be gleaned from the history and examination, this was usually sufficient to obtain a working diagnosis and treat the patient accordingly. Although the more experienced clinicians in England have tried to teach us this lesson, our experience in Nepal made this teaching explicit. People at home are quick to complain about the way they are treated by the health care system, those that work within it are not satisfied with the facilities available to them. As much as we are told about the way of life and health care in the Third World, a visit to such a place makes you feel extremely lucky to be able to live and work in a country such as ours. Despite this the Nepali are some of the most kind, tolerant and trustworthy people that we have ever met, we have a great deal to learn from them and their country.