

## Dermatology in Ethiopia

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**Emelie Stenhammar, a resident in dermatology, describes here her experiences from a course in global dermatology, which apart from the theoretical part in Sweden also consisted of an optional part in Addis Ababa, Ethiopia.**

The Nordic countries are fortunate to have been spared many of the dermatological diseases that afflict the global South. This situation is largely due to differences in climate and financial wealth. However, Nordic dermatologists are increasingly coming into contact with the panorama of tropical or global dermatology, either through caring for people from the South who have moved to Nordic countries as refugees, through caring for returning tourists, or in the course of our own travels. Global dermatology does not have a large part in the current Swedish dermatology residency curriculum, and is therefore a highly relevant subject of study for young dermatologists.

A course in global dermatology was held in Stockholm, Sweden, at the beginning of February 2013 over a period of 2 very cold snowy days. The course was set up by Drs Maria Bradley and Anders Grängsjö, together with their Ethiopian colleague Dr Kassahun D. Bilcha. Dr Bradley has an ongoing research interest in atopic dermatitis, in which she is collaborating with doctors in Ethiopia. Dr Grängsjö lived in Ethiopia for some time during his youth and has travelled to the country numerous times since. Their common interest in Ethiopia, together with a desire to provide young colleagues with an opportunity to learn about global dermatology and to experience it for themselves, was the basis for setting up this course, which it is hoped will be followed by many more.

The course was in 2 parts; a theoretical part in Sweden, and an optional part in Addis Ababa, Ethiopia. Twenty-five residents in dermatology from all over Sweden met for the first part of the course, at Ulfsunda Castle in Stockholm, where we attended exciting highly informative lectures given by experienced teachers. For example, we learned about Leishmaniasis, healthcare in low income countries, and travel medicine. A personal favourite was Sven Britton's lecture about leprosy and Buruli ulcers. Six residents then had the opportunity to join the second part of the course, for which we travelled to Ethiopia and the All Africa Leprosy, Tuberculosis and Rehabilitation Training Centre (ALERT) Hospital in Addis Ababa (Fig. 1). Addis Abeba University was our host and the head of the Department of Dermatology Dr. Dagnachew Shibeshi and Senior consultant Ahmed Issa took extremely good care of us.



*Fig. 1. Visitors to ALERT Hospital for the second half of the global dermatology course. Upper row from left: Carl Thorell, Professor Ron Harris, Dr Maria Bradley and Kyriakos Orfanides. Lower row from left: Emelie Stenhammar, Iara Drakensjö, Ingela Svedberg and Anna Rosling.*

As Dr Bilcha described to us in a colourful way, Ethiopia is a very interesting country with a long and rich history. It is one of the few African countries that has never been colonized. Ethiopia has its own written language. According to Ethiopian tradition the Queen of Shaba visited King Solomon (as is also written in the Old Testament). She did not just receive his wisdom; she was also impregnated by him. On her return to Ethiopia she gave birth to a son, Menelik, the first king of Ethiopia. Later Menelik, after visiting his father Salomon, brought the stolen Ark of the covenant to Ethiopia, a replica of which is now displayed in almost every church in the country.

Ethiopia is a financially poor country, with 40% of the population living on less than 1 US dollar a day. Among the adult population levels of illiteracy are 42%, and the availability of healthcare and doctors falls below World Health Organization (WHO) recommendations.

Dermatology in Ethiopia is an exciting subject, and, as Dr Bilcha pointed out to us, it is rather different from the practice

and disease panorama in Nordic countries. Skin problems are one of the 10 most common reasons for morbidity, and there are only 50 dermatologists for the whole population of 90 million. Thus, most people with skin problems seek help from primary health workers and traditional healers.

One factor that makes the practice of dermatology in Ethiopia different from that in the Nordic countries is the skin colour of the population, which ranges widely, from lighter Middle Eastern skin to darker sub-Saharan skin. Dark skin has its own characteristics, especially when it comes to symptom presentation and wound healing.

Another point of difference is that most people are religious and associate their symptoms with God or some spiritual reality or curse. Therefore they may seek a cure for disease from someone or something that can intervene on their behalf, between God and themselves; often a traditional healer, priest, or water from a holy well. If unsatisfied with the result, a patient may consider medical healthcare, but even then the doctors are seen primarily as instruments of, or mediators between, themselves and God.

Education, or lack of it, is closely connected with this phenomenon. People have their own ideas of the origin and cure of certain diseases. Examples include: that herpes simplex is caused by sun exposure; and gonorrhoea is caught while urinating facing the moon. The wind is believed to affect patients; hence it is not uncommon to see a patient wearing many layers of clothes. Other beliefs include that alopecia derives from being licked by a frog, and herpes zoster from being bitten by a spider. Hypopigmentation causes great fear, and even small lesions can be stigmatizing and lead to involuntary isolation due to fear that it is contagious. Hyperpigmentation, on the other hand, seldom causes alarm, and here we find severe cases of patient delay; for example, the average size of a melanoma at diagnosis is 5 cm. Conversely, congenital naevi on a baby's face may be seen as desirable, being regarded as a sign that the baby was kissed by the Virgin Mary before birth.

A major issue that affects the practice of dermatology in Ethiopia is poverty. Although much of the healthcare is subsidized, many patients cannot afford medication, especially for chronic diseases.

Lastly, the climate is a contributing factor. Ethiopia has both a tropical and a subtropical climate, in which bacteria, parasites and mosquitoes thrive.

The prevalence of skin disease in Ethiopia is high, with infections accounting for a large part of this. Diagnosis and treatment are often delayed due to traditions, long distances to health facilities, financial difficulties, etc., but also due to

doctors' delays, often caused by misdiagnosis and mistreatment by general health practitioners with poor education. In addition, HIV infection may either complicate or be the cause of symptom presentation. In Ethiopia 1.5% of the population is estimated to be HIV-positive. Of these, 100% will have HIV-associated skin problems during their lifetime. Depending on the patient's CD4 count different manifestations are seen; for example, angular cheilitis, seborrhoeic dermatitis, herpes zoster, molluscum, pruritus, Kaposi's sarcoma, and photoallergic reactions. In addition, drug reactions, such as toxic epidermal necrolysis (TEN) and Drug Reaction with Eosinophilia and Systemic Symptoms (DRESS), are 100 times more common in HIV-positive patients than among the general population.

Our small group visited Addis Ababa and the ALERT Hospital, which was founded in 1922 by the American missionary Thomas Lambie as a leprosy hospital. Nowadays it is a 240-bed, part government-funded hospital with a focus on dermatology, with additional wards for ophthalmology, surgery and an orthopaedic workshop. Ongoing rehabilitation of leprosy patients is delivered at the Hansen Clinic, as is training of personnel working with leprosy patients. In addition, research into leprosy is carried out at the Armauer Hansen Research Institute. Armauer Hansen, was a Norwegian medical doctor who, on the basis of his epidemiological studies, questioned the common notion that leprosy was a hereditary disease. He was convinced that the disease had an origin outside the patient, and in 1873, using microscopy, he discovered the small intracellular rods of *Mycobacterium leprae*. There is a statue in his honour at ALERT Hospital.

Dermatology resident training is also delivered at ALERT Hospital. Those of us visiting the hospital had the opportunity to join our Ethiopian colleagues at the outpatient clinic and on the wards (Fig. 2). It was interesting and inspiring to see how the lack of resources was, to a surprisingly large extent, compensated for by a rich knowledge and a sharp clinical eye. Although biopsies and various blood measurements can



Fig. 2. Resident physicians Gelial Teshome and Fresenay Ewnetu at ALERT Hospital together with Emelie Stenhammar.



Fig. 3. Patients waiting to be seen at the outpatient clinic at the ALERT Hospital.

be performed, in most cases they are not used due to lack of financial resources. The doctors must therefore rely on physical examination to a great extent. In training residents a great emphasis is therefore placed on the development of a clinical eye, and on accumulating knowledge.

The resident's day begins with 1.5 h teaching session, during which their more experienced colleagues teach various relevant subjects. Guest lecturers from foreign countries are not uncommon. Several afternoons a week are set aside for personal study. All this study clearly pays off; the residents have an impressive knowledge of dermatology. Resident doctors also have outpatient clinics every day between 10.00 h and 12.30 h, during which they examine approximately 25–30 patients.

After starting the day with a lecture, we joined our Ethiopian colleagues in their outpatient clinics. At the clinic the waiting rooms were crowded with patients (Fig. 3) with a wide range of conditions, from simple plantar warts to grossly disfiguring



Fig. 4. A 45-year-old male patient with chromoblastomycosis.

leprosy. During the few days of our visit we saw, what were for us, unfamiliar diagnoses, such as leprosy, Leishmania, Madura foot, chromoblastomycosis, podoconiosis, xeroderma pigmentosum, post-exposure prophylaxis due to HIV infection, lupus vulgaris and pellagra. But we also saw more familiar conditions, such as atopic eczema, psoriasis, vitiligo, pityriasis rosea, and molluscs. Even these common diagnoses were interesting for us, since on dark skin the symptom presentation was different to that which we usually see in Nordic dermatology.

One of the many patients we met at the outpatient clinic was a 45-year-old man who had had verrucous plaques bilaterally on his lower legs for the last year (Fig. 4). He was diagnosed with chromoblastomycosis and was given treatment with itraconazole 400 mg/day for 1–2 years.

At the Hansen Clinic, where we spent a day, we met a 12-year-old boy who had come to the clinic with his father from a distant rural area (Fig. 5). They reported that his mother had had skin problems for many years, but had never consulted a



Fig. 5. A 12-year-old boy with leprosy.

doctor and her condition was undiagnosed. When the boy was 4 years old he started to develop skin problems, but it was not until he was 10 years old that his father took him to a doctor, who diagnosed him with leprosy. He was started on combination treatment with rifampicin and dapsone, but after only a few months he stopped taking his medicine for unknown reasons. When we met him, 2 years had passed since the interrupted treatment. The disease had spread further and his face and ears were grossly disfigured and his arms, legs and buttocks severely affected. He hid his face with a blanket while waiting for his turn. We accompanied him to the laboratory, where a slit-skin test was performed and the finding of rod-shaped bacillus re-confirmed the diagnosis. During the visit to the physiotherapist he was examined regarding loss of sensitivity and motor function. His motor functions were intact, but he had some sensitivity loss. Upon examination, signs of erythema nodosa leprosy (ENL) reaction were found, and he was therefore referred to the ward for more intensive treatment. During his stay at the Hansen Clinic, the boy and his father will receive education about leprosy, what it is and what it is not, and how to care for leprosy-affected skin to avoid secondary complications. Since leprosy is a highly stigmatizing disease in Ethiopia, many patients, in addition to their physical suffering, become excluded from social groups due to fear that they are contagious.

In addition to everything we experienced and learned during our few days at ALERT Hospital, we attended lectures given by

Professor Ron Harris from the University of California, USA, who had travelled to Addis Ababa for our course. This was also of great benefit to our Ethiopian colleagues. Professor Harris is both a dermatologist and pathologist, and has worked in Kenya for many years, and has thus a great knowledge and experience of tropical dermatology. His informative and inspiring lectures about Leishmaniasis, deep mycosis and HIV-associated dermatosis were highlights of the course.

Apart from visiting ALERT Hospital we also had the chance to experience some of the countryside beyond the hospital. We had a day trip horseback riding in eucalyptus woods, we visited the largest market in Addis Ababa, and we spent a few lovely hours in the Entoto Hills, which provide a magnificent view of the city.

We also had the opportunity to visit the Hamlin Fistula Hospital in Addis Ababa, which was founded by Drs Reginald and Catherine Hamlin, obstetrician/gynaecologists, from New Zealand and Australia, respectively. According to their webpage, the hospital has treated more than 30,000 women, and provides free fistula repair surgery to approximately 2,500 women every year. That too was an inspiring visit.

This was altogether a great course, which introduced us to the field of global dermatology in a comprehensive way, and provided an excellent first-hand experience of unfamiliar dermatological diseases and practices.