Heat and dust in south Sudan

Madeleine Cole, MD

Sudan is the biggest country in Africa and has been in the throes of a devastating civil war for over 30 years. In a great oversimplification, it is a war between the Muslim, Arabic north and the animist and Christian south. Access to resources, such as water and arable land, are also at stake. Specifically, exploitation of oil reserves has added real fuel to the fire, with Khartoum now spending US$1 million a day on the war.

For 3 months during the dry season, I volunteered as a physician with MSF (Medécins Sans Frontières) on a mission in south Sudan, in a flat, sparsely treed transition savannah just south of the Sahara desert, where temperatures often reach 44° in the shade. The population are the Dinka, who are tall, thin, dark black and beautiful. Despite their incredible hardships, they are a gregarious, kind and welcoming people.

Alex Ekai

Akuem Primary Health Care Centre staff in front of the ward

1600 patients a week

The Akuem PHCC (primary health care centre) is a collection of 5 mud-and-thatch structures called *tukuls*. The outpatients department, antenatal clinic and hospital are bustling places that have been operating for 2 years and now care for 1600 patients a week. The catchment population consists of about 120,000 Dinka, who often walk for days to reach the PHCC. There are 10 Sudanese nurses, all men, with varying training backgrounds. Most have spent 6 months doing community health worker training at a Sudanese Red Cross hospital. They are good people, committed to their community and keen to learn. My clinical expat colleague in the PHCC was an excellent Australian nurse midwife. During my stay, 2 nurses arrived to run our therapeutic feeding centre, which had blossomed to care for close to 100 severely malnourished children.

The clinical medicine was really interesting and occasionally overwhelming. While difficult in some ways, it was very simple in others. With no labs or investigations, and a very limited range of treatment options, common sense and good physical exam skills prevail. There were lots of straightforward minor surgeries to do — drain the abscess (tons of them), dig out the thorn or bullet from wherever it is doing damage, stitch this or that up... That's the easy stuff that gives one a sense of being helpful and solving a small problem. However, there were lots of problems that came through the clinic and ward that were neither simple nor fixable; the near blind from vitamin A deficiency; kids with serious congenital heart disease that have no hope of an operation; folks with obvious TB and much more.

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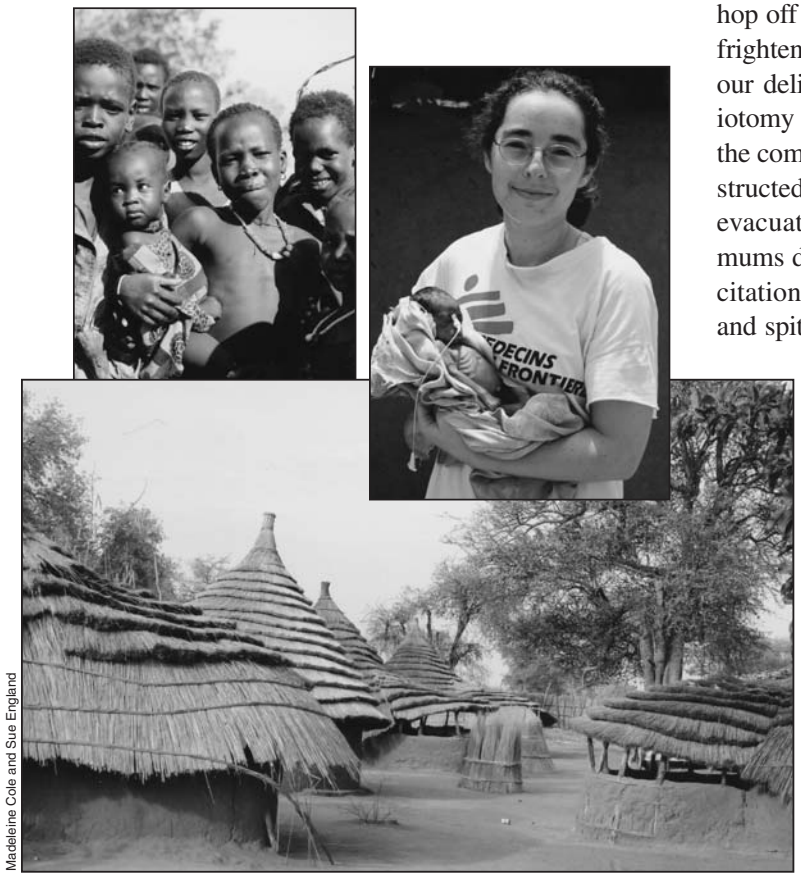

Madeleine Cole and Sue England

Clockwise: Kids taking care of kids; Dr. Cole, holding a premature infant with intrauterine growth retardation; The PHCC compound

Obstetrics, Sudan style

The PHCC has 4 traditional birth attendants (TBAs). They are strong, skilled, illiterate women who attend deliveries in the village of Akuem and at the PHCC. However, the overwhelming majority of babies are born in the community without the help of a TBA, in unhygienic conditions, to unimmunized mothers. Consequently, there are frightening rates of neonatal tetanus. Although we had some success treating babies with tetanus, there were, sadly, more deaths than cures. Happily, the mothers who were successfully treated for tetanus were all able to walk out of the hospital, if a bit stiffly, after weeks of diazepam and analgesics.

There is a high rate of twin pregnancies among the Dinka and some fascinating cultural practices around their births: much joy, lots of high pitched whistling and, on the following day, more dancing and ritual celebration. If one baby dies, the surviving twin carries a wooden doll with them everywhere for the rest of their life. Of course, the Dinka women do not use medications for pain control during labour. They just get on with it, usually do just fine and hop off the bed 10 minutes later. That being said, the most frightening clinical experiences I had were undoubtedly in our delivery *tukul*. For example, I assisted in a symphysiotomy after the mother had 2 days of obstructed labour in the community, and followed that by caring for another obstructed, septic, pre-eclamptic woman until she could be evacuated for a C-section. Amazingly, both babies and mums did remarkably well. The traditional neonatal resuscitation technique involves taking a mouth full of water and spitting it all over the baby. Apart from a mouth-operated suction device and some neonatal resuscitation knowledge, there was little more that we could offer.

Famine, bombs and bullets

Another reason MSF is in south Sudan, apart from providing primary and simple curative health care, is to monitor and respond to the food security situation. In 1988, a quarter of a million people died of starvation in and near our province of Bahr el Ghazal. Ten years later, another huge famine affected about the same number of people and was again largely caused by the war and human rights abuses. The Sudanese government tightly controlled where food aid was distributed, and much of the food was diverted to feed soldiers. Further, when villages are raided, they are burned to the ground and families lose all of their crops. The World Food Program drops palettes from the skies quite regularly, with bags of premixed grains. Not a grain is wasted. While I was there, they were dropping 50% rations, meaning that the food that is distributed is expected to provide half of the minimum necessary caloric intake to maintain weight and ward off famine. The other half of the food source is crops from the land, which consists of what is left of last year's harvest of peanuts and sorghum. It is quite a sight to see the Aleutians fly over and drop.

The only other things, apart from rain, that fall from the skies in south Sudan are bombs. Our community was bombed once during my stay in Akuem. I was stepping off the plane into the welcoming crowd on our airstrip when we all heard the sound of high-flying aircraft. The Dinka, having learned from experience, recognized that these planes carried bombs, not food, and ran off to bomb shelters or lay flat and covered their heads. Most of us crouched, wide-eyed and horrified, in the shelters. Tears from some, prayer for others, we waited to see how many passes the planes would make. This time they dropped

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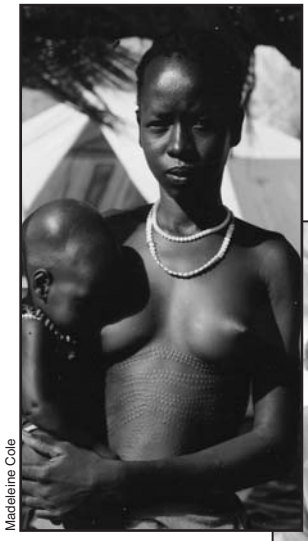
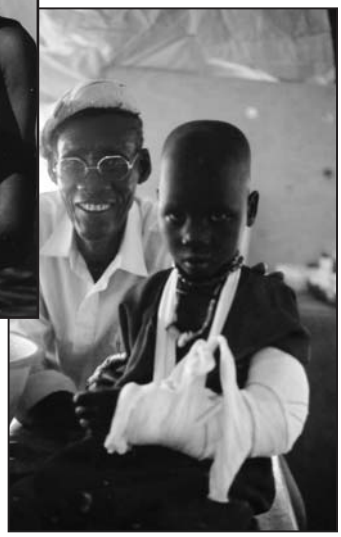
only once, about a kilometre from our hospital, and no one was killed.

April is the beginning of what is called "The Hunger Gap," as the previous year's food stores run thin and the next harvest is not until September. Traditionally, cow's milk provides an important energy source to tide the people over. Sadly, cows are one of the commodities that are looted by the Murahaleen, armed horsemen sanctioned by the Sudanese government in Khartoum. The other booty is women and children, who are taken north as slaves. The Murahaleen are Arabized cattle nomads that move south to protect government trains on their way through SPLA (Sudanese People's Liberation Army) territory. In return they raid Dinka (and other aboriginal) communities on the horses the government provides them with.



Madeleine Cole



Top: Mum and child in the therapeutic feeding centre; Bottom: Practising orthopedics without x-rays

Late one night I was on the ward, using flashlights to help the nurses tend to an SPLA soldier who had come from the train line. While getting the IV and antibiotics going, a chicken jumped and squawked from bed to bed, driving us all nuts. The soldier had been shot that morning near the train in an attack on his village and was carried 16 hours on foot to get to us. He spoke of the cattle, children and young women being taken away while their homes burned. The bullet missed the major vessels by an inch or so, but went through his bladder and bowel. The next morning we were able to get him out on a UN plane that was in the area. Certain surgical emergencies are given the "green light" to go to a Red Cross hospital in Lokichokio (northern Kenya). Often it is a few days' wait, but in the context of south Sudan, it is amazing that medical evacuations can happen at all.

Contrary to most of our perceptions of war, the greatest morbidity and mortality is sustained not by soldiers at the frontlines, but rather by civilians. One of the more tragic experiences I had in Sudan, was when an 8-year-old boy was brought in, warm but pulseless, in the arms of his father. He had shot himself in the foot with his dad's gun and was carried in exsanguinated, with his foot hanging on by a thread of muscle, and bony shards all over the place. In Canada, thanks to our reasonably stringent gun control laws and my good luck, I have yet to see such a tragedy and was barely familiar with the term "GSW" before working with MSF. Life expectancy in south Sudan is estimated to be 36 years: the lowest in the world and a number that can only be achieved in countries devastated by civil war. Although I dug out my fair share of bullets and shrapnel, despite being about 30 kilometres from the frontline, the vast majority of patients were children and civilians. The bulk of the medicine was infectious disease, and the big three killers were diarrhea, pneumonia and malaria. Scorpion and crocodile bites and a case of suspected post-vaccine polio kept things interesting.

Chronic political disaster

When I work in other countries, I am reminded again and again how fortunate we are to live in a country at peace and with a health care system accessible to all. In late May, the conflict was heating up again in our region and Akuem was bombed. This rising insecurity prompted my departure, but I left south Sudan with a heavy heart. The Sudanese I had the privilege of working with and caring for were not able to make such a choice. Until there is an end to this chronic political disaster and peace prevails in Sudan, the people will continue to be ravaged by easily preventable diseases and malnutrition. Despite the pathos of the big picture, it was extremely gratifying to work with and learn from people so clearly in need. One of the most valid reasons for working with populations in danger is that, by our very presence, we demonstrate our solidarity and our humanity. Another physician has taken a turn in Akuem, and the people of south Sudan will not be forgotten.

If you are interested in volunteering or supporting Medécins Sans Frontières / Doctors Without Borders, call 800 982-7903 or check out the Web sites at www.msf.ca and www.msf.org

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