Sun, Sea, but still no 'Sux' in Sierra Leone

Keith D Thomson

This former British colony, once known as the 'Jewel of Africa,' is sandwiched between Guinea to the West and Liberia to the East. Since 1991 the 5 million inhabitants have lived with chronic civil war, armed conflict and the absence of effective government forcing more than two thirds of the population to flee their homes. January 6th 1999, the last time the rebels hit Freetown, was the Sierra Leonean equivalent of September 11th. As a result of that violent incursion the country is now home to 17,000 UN peacekeepers and up to 1,000 British troops.

The former are known locally as "English chickens" because they are easy to catch and the latter as "lion stones" because of their toughness which was particularly evident in August 2000 when in a daring dawn raid, they rescued some Irish Rangers held hostage by a vicious rebel group called "The West Side Boys". Only one British soldier was killed in the action, allegedly because he hesitated to shoot a 10 year old aiming an AK47 at him. After the battle the newspapers described at least 32 rebel deaths but local rumour has it there were many more.

Sierra Leone [1], now branded as the poorest nation on earth, ranked last on the UN Human Development Index (annual *per capita* income just US$130), claims one of the lowest life expectancies in the World – her inhabitants seldom reach their 40th birthday. The infant and maternal mortality rates are among the worst in the World and only about 21% of the people can read and write. The country has had a difficult decade, perhaps not helped by Western women and their desire for high quality gems. Apparently these 'conflict' diamonds, mined by rebel groups supported by outside agencies, are taken to Liberia where they are purchased from President Charles Taylor's men by Antwerp dealers who regularly fly into Monrovia, the capital. There are other mineral resources including gold, bauxite and titanium, but, extraordinary as it may seem, the general population has not benefited at all from this considerable wealth.

Arrival of the Anastasis

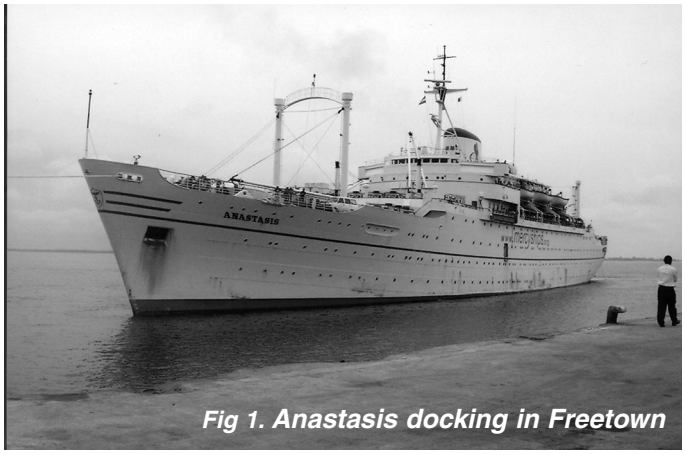

Fig 1. Anastasis docking in Freetown

On the 23rd November 2001, the Mercy Ship *Anastasis* [2] (Fig.1) fulfilled the promise made nine years ago [3] to return to this fascinating West African country with its charming, friendly people. The final docking of the ship was fraught with difficulties caused by a strong off-shore current, the fact that all the local tugs had been blown up in the war and the stately vessel, built in 1952, possesses no side thrusters. I had arrived in Freetown with 5 other volunteers on the Sierra National Airlines flight from Gatwick 3 days before. Others included Dr Arthur Irlinas from Lithuania and Dr Suzanne Krone from East Grinstead who, with myself, comprised the all consultant anaesthetic team. The journey went well apart from the terrifying final seven minute leg to Freetown from Lungi airport crammed inside an ancient Russian Mi8 helicopter (sort of "zemidjan with wings" – re Benin!). One afternoon while walking along a nearby beach we met former refugee John Williams, who had had emergency surgery for a degloving injury while the Anastasis was in Guinea three years before: he proceeded to pull down his trousers,(in front of the ladies!), to show us the healed skin graft over his left tibia and the donor sites on his thighs.

How do I wipe my backside?

On another occasion we made an unforgettable visit to the Murraytown amputee camp: There were approximately 250 inmates of which 32 were bilateral hand amputees, meaning both arms had been hacked off with the scalpel of choice – the machete. For some of them the amputation occurred after rebels had force marched them into a town carrying heavy loads but under the watchful muzzle of an AK47. When they reached the destination, exhausted and scared, their hands were bound and they were asked if they wanted short sleeves or long, the answer determined where the rebels cut off their arm. If the rebels couldn't hold them still they slashed their noses, fingers, or anything they could grab or else they would stab the prisoner in the shoulder or shoot off a leg. But even these appalling mutilations were perhaps less horrendous than 'recreational' Caesarean sections performed by rebels on pregnant women after betting on the sex of their unborn child.

Consultant Anaesthetist, North Hampshire Hospital, Basingstoke, EG24 9NA

We met Dr Phil Lacoux, a consultant anaesthetist from Dundee, who has an NHS contract for 6 months and works for MSF (Medecins Sans Frontieres) for the remainder of each year. He was counselling amputees with pain syndromes, and treating them with amitriptyline and carbamazepine. Some patients said that the tablets made them very sleepy but at present they couldn't take them in the daytime because it was Ramadan. Several young children from the camp had been taken to the United States for treatment and possible adoption. I met 18-year-old Fatmata, a beautiful young woman whose left leg had been hacked off just below the knee, also 25-year-old Michael (Fig.2) who had had both hands removed.

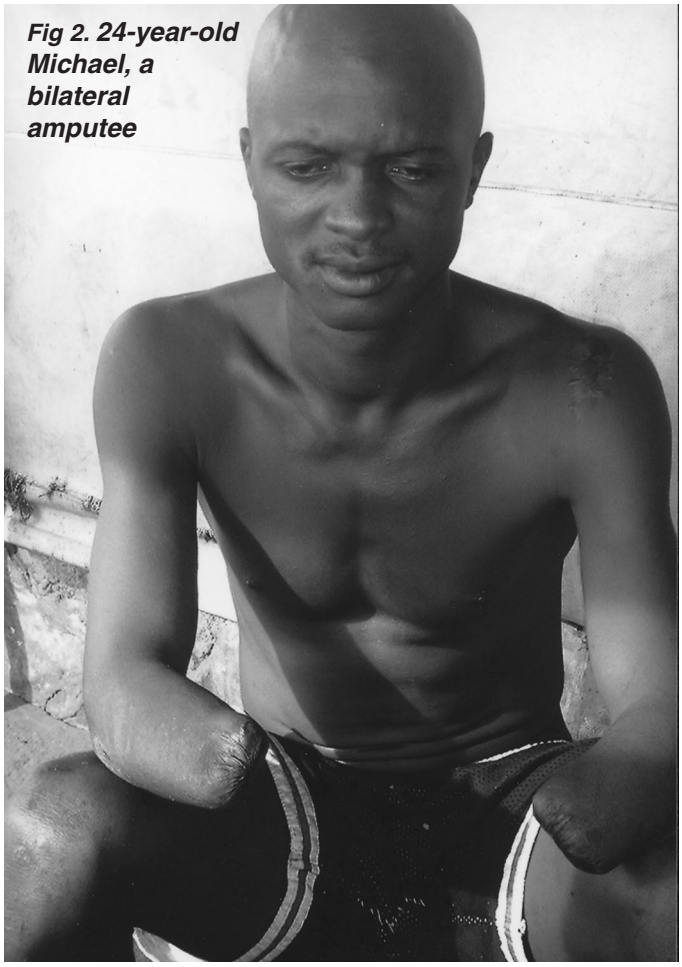

Fig 2. 24-year-old Michael, a bilateral amputee

Other than the absence of extremities and the inability to eat, dress or go to the bathroom without assistance, the amputees were perfectly normal – except for the memories.

Many of the amputations were carried out apparently by drug crazed child soldiers whom the rebels had threatened to kill if they did not follow commands. Reintegration of these teenagers (up to 16,000) into society poses a challenge for the authorities and N.G.O.s (Non Governmental Organisations) involved. Plastic surgery to remove the stigma of the letters RUF (Revolutionary United Front)) branded on the chests of several of these unfortunate young people was performed by the Anastasis surgical teams.

Screening for Surgery

This took place in two separate venues three days after the ship arrived. In a local conference centre, patients were selected for maxillofacial, thyroid and eye surgery while screening for vesico-vaginal fistula (VVF) surgery took place at the Princes Christian Maternity Hospital (PCMH).

Vesico-vaginal fistula occurs as a result of prolonged obstructed labour and eventual delivery of a dead foetus in those women, often only teenagers, who survive the ordeal. Its consequence is a ceaseless, unrelenting trickle of urine, perpetually soiled garments and an offensive odour. To cover and soak up the leakage women usually wear thick multi-layered clothing called a 'krobobo' – the African equivalent of a feminine pad. Rejection by spouse and family usually follows. Travel by public transport is not possible. Suicide is a not uncommon option. Fistula repair is a new venture for the medical department on board the 'Anastasis'. Professor the Lord McColl, Chairman of Mercy Ships UK, had spent three weeks at the 'Fistula Hospital' in Addis Ababa learning the surgical techniques; he was joined in Freetown by specialist fistula surgeon Dr Biruk and Sister Tenadem from Ethiopia.

On the first VVF screening day I assessed 63 patients for anaesthesia. Their ages ranged from 12 to 40 with over a third of them less than 21 years old. They had been in labour from between1 and 7 days before delivering a dead baby, 49 had no living children. The mean duration of fistulae was 4.6 years with a range between one month and 20 years. Only two had had subsequent live births. Five of the younger girls had been rebel sex slaves, these included 12-year-old Bintu Hook who as well as a VVF also had a recto - vaginal fistula, which is usually associated with insertion of sharp objects. She had undergone the psychological trauma two months earlier of having her surgery cancelled on the operating table, when a visiting American surgeon realised she was not capable of doing the repair. On the second day of my visit the Ethiopians examined 90 women but because of lack of surgical time scheduled only 38 for surgery and put 12 on a reserve list. Of the 50 routine blood samples I took sadly 3 were found to be HIV positive so the patients were cancelled which was good news for 3 of the women on the reserve waiting list.
As the women were screened they were separated into 'yes', 'no' and 'maybe': Dr Biruk decided that a single operation would not correct Yaelia's fistula, she is 15 and parentless (Fig.3) – both were killed as the rebels kidnapped and then raped her – nine months later when her baby was being born, a rebel forcibly pulled it out of the birth canal, killing the child and causing such a severe fistula that correction would require multiple surgeries and several months of recovery. As the implications sank in, the girl fell on the floor and wailed, causing head jerking stares and silent 'Please God – not me' from the other 80 women in the room.

Fig 3. 15-year-old Yaelia at the fistula screening

It was an emotional day for those women and the medical team with tears of joy for those selected for surgery and of sadness for those not.

VVF Surgery on Board

A new aft ward with 16 beds was created especially for the fistula patients. It was run by Angie Hartman and her dedicated nursing team who seemed to spend most of their shifts cheerfully emptying urine bags! The chosen anaesthetic technique was spinal anaesthesia with hyperbaric bupivacaine with fentanyl. This was converted to a GA in 3 out of the first 8 patients because surgery often took longer than 2 hours. Combined Spinal Epidural was then adopted as the anaesthetic of choice. We used a double space technique piloted by Dr Arthur from Vilnius who was awarded honorary 'FFA status' (Famous Fistula Anesthesiologist!). Most of the spinals were made more challenging by hypertrophied paravertebral muscles due to the custom of women carrying heavy loads on their heads since childhood. Interestingly the Ethiopians were impressed that none of the patients developed a post-dural puncture headache because in Addis Ababa the incidence is 100% using reusable 19G Quinke point spinal needles as compared with our 25G pencil point ones (*Pencan, B.Braun*). They also give prophylactic ephedrine made by dissolving tablets in boiling water and giving the cooled mixture intramuscularly.

None of our 38 patients required ephedrine. Some of the women needed 3 or 4 units of blood donated by the *Anastasis* crew probably because the Ethiopian did not use diathermy; a situation that changed when Lord McColl operated. Some of the surgery was very challenging: one woman was found to have both ureters detached from the bladder and another had completely lost her urethra. We followed the Addis Ababa protocols which meant keeping all the women in bed for 14 days post-op, with urethral and often ureteric catheters in situ. Lord McColl feels that suprapubic catheters might be an alternative in the future.

As these women were awake for their surgery a few words of the local language, Krio, proved useful:-

How de body man	how are you?
Glady glady	happy
Small chouk	small injection
You day blow	can you breathe?
You da feelam	have you any pain?
You wan vomit	do you feel sick?
We don don	finished
De mummy and daddy business	sex

Remarkably all 38 women left the ship dry although five still suffered from mild stress incontinence. Before leaving the ward each woman was given a new dress as a symbol of her new life (Fig4).

Fig 4. 22-year-old Sia in her new dress with Dutch nurse Marianne

Every presentation ceremony included joyful singing and dancing which encouraged those still recovering from surgery. For future pregnancies a fund has been started to help pay for elective Caesarean sections. Each woman has been given a laminated identity card with a colour photograph.

Maxillofacial Surgery – Airway Challenges

This provided opportunities for fibre optic intubation, technique at which Dr Suzanne from E Grinstead repeatedly showed her skill. Each patient was sedated with a mixture of midazolam, ketamine and morphine and had a crico-thyroid block performed with 4 ml of 2% lignocaine.

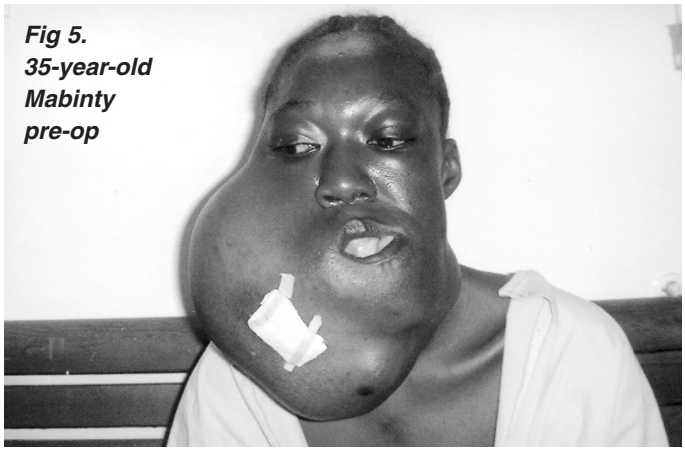

Fig 5.
35-year-old
Mabinty
pre-op

One memorable case was 35-year-old Mabinty (Fig.5) who had a huge right sided ameloblastoma which apparently gave an endoscopic appearance of several pseudo epiglottides: just prior to successful intubation her SaO_2 transiently fell to 65% but I held my nerve and did not rush Suzanne. Seventeen-year-old Patrick provided a particular airway challenge in the middle of the night when he started bleeding after a hemimandibulectomy. On the ward the only position he could tolerate was sitting up and leaning forward, dribbling blood into a kidney dish.

He was walked upstairs to the operating room and after pre-oxygenation, anaesthesia was induced sitting up with propofol and suxemethonium. Dr Gary, the surgeon, was scrubbed up and the patient was laid flat, suctioned and intubated. Cricoid pressure was not used because the blood was coming from above. The planned tracheostomy was performed and bleeding was stopped. He was ventilated in HDU overnight and eventually made a successful recovery.

Ten-year-old Abou, who weighed only 18Kg, had a 15x10 x7 cm fast-growing mass on the front of his neck (Fig.6), which extended retrosternally so tracheostomy was not an option. Anaesthesia was induced with sevoflurane in oxygen, the glottis was displaced to the left, a 5.0 tube was inserted. The mass was debulked and a tracheostomy performed. Two nights later he developed severe laryngospasm and wheeze unresponsive to adrenaline, steroids and salbutamol and sadly suffered a cardiac arrest.

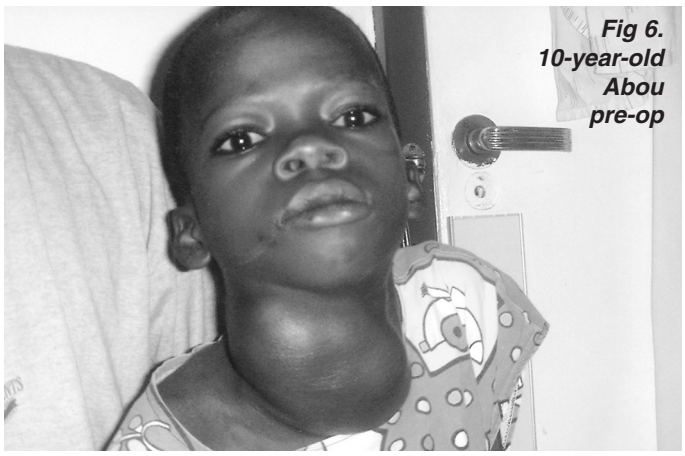

Fig 6.
10-year-old
Abou
pre-op

Resuscitation was stopped after 45 minutes. His uncle was present throughout so his family knew how hard we tried. This was my first death during 12 visits to the Ship. The histology was B cell lymphoma.

Local Freetown Anaesthesia Service

Standing in dramatic contrast to the facilities on board the *Anastasis* was the lack of well trained staff, equipment and drugs at the local hospitals. At present there are no Sierra Leonean doctors trained in anaesthesia practising in the country. Connaught, the main hospital in Freetown, only has two trained anaesthetic nurses plus one or two others, of indeterminate ability, working under them. In addition there were a couple of anaesthetists supplied by an NGO. The most commonly used drug was ketamine.

There was a minimal supply of ether, halothane and muscle relaxants. Dr Eric Vreede, one time consultant at The Middlesex, was working for a UN agency organising an 18 month training programme for nine Sierra Leonean anaesthetic nurses so that their patients would have a better chance of survival. Interestingly several of the fistula ladies were delighted when I mentioned they would be awake for surgery because they knew friends who had succumbed under general anaesthesia. Eric also told me that at the PCMH in 2000 there were 1600 deliveries but over 100 maternal deaths mainly from haemorrhage and infection. Also in the past three months there had been 40 cases of eclampsia with a 25% mortality not helped by liberal doses, (up to 40 mgs) of diazepam given by local junior obstetricians (*what about magnesium sulphate*?).

Sadly inability to pay for a Caesarean section (US$100 in 1993) is still a cause of maternal mortality, although the International Red Cross are funding a few as well as providing some hands-on theatre and midwifery training. Dr Eric's anaesthetic nurses were welcomed on board the *Anastasis* for airway management experience.

Off the Ship

The Sierra Leonean people are some of the most charming I have met in the eight West African countries I have visited. What has been going on in this country over the past few years has been so indescribable that no one has been left untouched. Everyone has tales to tell of how either their relatives or friends were killed or mutilated by the rebels or how they were fortunate enough to escape. The huge UN troop deployment and NGO presence is a calming influence but the downside is the increase in the cost of living. I asked a British officer why there is still a curfew at night in Freetown with the apparent absence of any rebels, he just laughed and said "If it is raised the UN troops lose their danger pay!" The capital itself, a shadow of its former colonial glory in the 1960s, is a ramshackle, broken-down town with many burned houses, tell tale bullet marked walls and over a million extra 'internally displaced persons.'

There is no electricity and consequently no street lighting, so driving around at night can be quite a challenge particularly when the one way streets are not marked! The public transport system consists of beaten up imported European cars masquerading as taxis and battered, old, dangerously overloaded mini-buses called 'putta puttas'. The latter had some interesting bumper stickers including "*God bless Allah*", "*Mother's blessing*", "*The Other Moses*", and "*No money*, *no friends*". At one restaurant we visited "*All girlls are served with vegetables and rice*" and at Jees Ministry Church, my talk was referred to in the programme as the "*massage*!" The local churches had very lively services lasting two or three hours, the congregation often performed a variety of "Pentecostal aerobics," rather different to the "sanctity of immobility" found in some services in the UK.

After Church on Sundays we often used a Land Rover to explore the coastal region. Hamilton Beach at the far end of Lakka Beach is one of the most idyllic spots I have ever visited – beautiful white sand and warm balmy water complimented by a lovely little beach bar run by a charming man called Joseph who serves delicious grilled fish, prawns and lobsters to order. Missionary life can be pretty tough!

Freetown is also the site of the first Mercy Ships land based office called 'New Steps' which has been in operation for just over a year. The volunteers are working mainly to provide orthotic devices and skills training for polio victims: there has been a significant increase in their number as the civil war has led to a loss of the immunisation programme.

Mercy Ships – the Future

After Freetown the Anastasis will be in Banjul (the Gambia) from mid March 2002 until the end of June and will then return to Europe, including a visit to Bristol from 30th August until the 12th September. She then goes back to West Africa in November, initially to Freetown again and then on to the port of Lome in Togo in March 2003.

The latest addition to the Mercy Ships; fleet, the 16,700 tonne *Africa Mercy* is still on Tyneside after shipbuilders Cammell Laird went into receivership in April 2001. A new deal has been struck with a company called MSC and conversion work will start again soon. We will then need many more volunteers to staff the planned five operating theatres and 85 bedded ward. Do consider taking a couple of weeks off from the hassles of the NHS to use your medical skills to help some of the poorest of the poor; I find it not only very worthwhile and personally rewarding but also great fun.

P.S. - African visit by Prime Minister

Tony Blair, on the 7th of February 2002, set off for a four day visit to Nigeria, Ghana, Senegal and Sierra Leone. His reason for going was reported in the Times as follows:- 'The West could face new terrorist threats unless measures are taken to relieve African poverty. Comparing the continent's plight with Afghanistan ten years ago when it was allowed to deteriorate into a failed state living on drugs and terrorism – in the end the impact was felt on the streets of America. Mr Blair also said that 'September 11th had strengthened his view that Britain has a duty to help Africa'.

References

1. www.sierra-leone.org
2. Mercy Ships UK, The Lighthouse, 12 Meadway Court, Stevenage, Herts. SG1 2EF. Tel: 01438727800. **Website: www.mercyships.org.uk**
3. THOMSON K.D. Sun, Sea but not much Sux in Sierra Leone. *Today's Anaesthetist* 1993: **8**:160-161.

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