Mercy ships: Changing lives
Neel Kothari looks at the volunteer work taking place in West Africa

It has now been over two years since the Dental Tribune first reported on the work carried out in West Africa by volunteering health-care professionals for the charity Mercy Ships.

Due to extreme levels of poverty in this part of the world the outcomes for those who are sick are very poor and many of the conditions that are considered treatable in developed countries often result in fatalities in the third world.

This article tells the stories of three people who have had life changing operations thanks to the work of the all of the volunteers at Mercy Ships and discusses the impact that treatment has had on these patients.

The first case is that of Agbekanme, a 40-year old lady who presented with severe mandibular osteomyelitis as seen in the accompanying photos.

Agbekanme’s case

In West Africa, the severity and extent of osteomyelitis is more widespread and persistent than those seen in the UK.

Apart from poor nutrition and a compromised immune system against infection, the lack of basic health care including dental treatment and antibiotic leads to uncontrollable periapical abscesses and subsequent extensive osteomyelitis in West African patients.

Acute medullary bone ischaemia and irreversible bony necrosis lead to chronic suppurative osteomyelitis.

Agbekanme was not in extreme pain as osteomyelitis itself is not particularly painful given the lack of nerve endings in bone, however she did have mild discomfort due to the mucosal infection.

Specialist Oral and Maxillofacial surgeon Leo Cheng reports that patients with osteomyelitis who remain untreated risk suffering from pathological fracture of the mandible and oro-antral/oro-nasal fistula for maxillary osteomyelitis. Mr Cheng also reports that very often patients presented with facial swelling and pus discharge and some have single and multiple extraoral sinuses. Some patients were tested to be HIV positive, sickle cell crisis, Hepatitis B and actinomycosis.

Although this is a severe case and rarely seen in the UK, an important message for dentists is to be aware of the increased risk of osteomyelitis that is posed by minor oral surgery procedures and bisphosphonate usage.

Bisphosphonates adversely affect osteoclasts, which are the cells responsible for bone resorption and thereby act to increase bone density. The literature shows that intravenous bisphosphonate usage carries a higher risk of osteomyelitis compared with oral bisphosphonate usage.

The uses of bisphosphonates include the prevention and treatment of osteoporosis, osteitis deformans (“Paget’s disease of bone”), bone metastasis (with or without hypercalcaemia), multiple myeloma, primary hyperparathyroidism, osteogenesis imperfecta, and other conditions that feature bone fragility.

Guanae’s case (before and after)

The second case is that of two-year-old boy Guanue, who presented with a rare bilateral facial cleft. Thankfully Guanue was lucky enough to receive treatment that managed to close his facial clefts and realign the anatomical structures. In West Africa, people with facial deformities often face a series of social issues that can often see them being ostracised from the society. Surgeon, Leo Cheng reports that apart from appearance there are a number of functional deficits including poor speech and overflowing of tears due to defective drainage of tears.

In Guanue’s case local fascial skin flaps (interdigitating and transposition flaps) were used to close the clefts and closure of the lower eyelid conjunctiva was also required.

For uneducated village chief and witch doctors, babies with clefting deformities are often treated as devil’s children because they feel that they are cursed. Some babies with birth deformities are even left in the forest for wild animals.

Alimou’s case

Our third and final case is that of 22-year old Alimou who presented with a large multicystic ameloblastoma of the mandible.

Alimou Camara is from Conakry, the capital of Guinea in West Africa. At 16 while in the 11th grade, Alimou had to stop school as the tumour was growing in size and becoming an unsightly spectacle. His siblings supported him, but his friends abandoned him.

“People laughed at me and rejected me,” he said.

He was unable to work, eat, and began losing weight. Alimou lived with one of his parents, relatives and villagers because they feel that they are cursed. Some babies with birth deformities are even left in the forest for wild animals.

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married brothers whose kids grew afraid of him. His sis-
ter-in-law feared conta-
mination and ordered her children
not to drink from the
same cup. His life slowly be-
came one of seclusion as
he kept himself inside hid-
den away from a judgmental
world.

After eight years his tu-
mour, which hung from his
lower jaw, had grown to equal
the size of his head. It was a
huge strain on his neck. His
bottom teeth were embedded
and displaced as the mass en-
larged. He experienced head-
aches and a continual water-
ing of his eyes.

There was a constant leak-
ing of pus that seeped from
his mouth where the fungat-
ing tumour protruded. Al-
imou would wipe it away, but
the smell was overpowering.

For the last several years he
has been unable to chew and
forced to push the food to the
back of his throat to swallow.

Without medical attention,
these benign tumours slowly
cut off a person’s airway as
they grow and in many cases
no longer allow the passage of
food through the mouth. The
eight-hour surgery involved
removing the three-kilogram
(6.6 pound) tumour, his lower
jaw, and all his lower teeth.
The tumour was removed and
he was fitted with a titanium
lower jaw by surgeons Gary
Parker and Mark Shrime.

The day finally came when
Alimou awoke without a
mass on his face for the
first time. Handed a small mirror, he
examined his face quietly, in awe, as tears slid down his cheeks. He was un-
able to speak due to the tra-
cheotomy.

Cosmetically, he looked
normal again and his face
felt much lighter. He was
planning to go back to school
as his aim was to become an
accountant.

On behalf of Dental
Tribune I would like to
give a special thanks to Mr
Leo Cheng for providing the
information and photos for
these cases.

For those of you who
wish to learn more about the
work carried out by Mercy
Ships, please visit www.merc-
yships.org.uk for further in-
formation.

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About the author

Neel Kothari

qualified as a den-
tist from Bristol
University Dental
School in 2005, and
currently works
in Sawston, Cam-
bridge as a princi-
pal dentist at High
Street Dental Prac-
tice. He has completed a year-long
postgraduate certificate in implantol-
ogy and is currently undertaking the
Diploma in Implantology at UCL’s
Eastman Dental Institute.

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