Operation Hernia 2018

Keta & Takoradi, Ghana, January 6 - 14

It is a great pleasure to inform you that the 9th Dutch Operation Hernia mission has successfully taken place in January 2018!

Operation Hernia was founded as a non-profit organization by Andrew Kingsnorth and Chris Oppong, both surgeons from the United Kingdom, in 2005. It offers professional and educational possibilities to surgeons and surgical residents, by performing herniorrhaphies in hospitals in mainly in Western and Eastern Africa. Since 2009, a Dutch team undertakes an annual trip to Ghana on a voluntary basis.

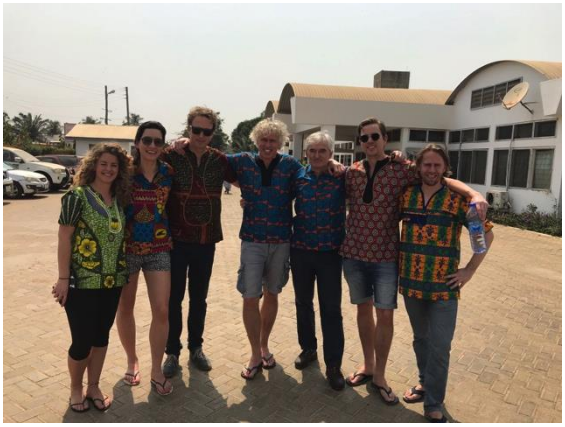
There is a substantial burden of disease in countries where the majority of the world's groin hernia patients live. Herniorrhaphy capacity is insufficient in low resource settings, resulting in a high hernia prevalence in those populations, as most cases remain untreated. This has an important economic impact. Moreover, it results in a high proportion of emergency surgery and significant morbidity and mortality. The estimated prevalence of inguinal hernias in the Ghana general population is 3.15%. The number of symptomatic hernias was estimated at 530.000, and the annual incidence of symptomatic hernias was 210 per 100.000 individuals. In a prospective cohort study comparing inguinal hernias in Ghana and the UK, Ghanaian subjects had an average age of 34 (versus 62 years in the UK) and two-thirds of Ghanaian hernias were reported to extend into the scrotum. Scrotal hernias in young patients have a major economic impact; with limited daily activities in 64% and incapacity for work up to 16%.

Hernia repair techniques using synthetic mesh have proven to be superior over non-mesh procedures in high-resource settings, particularly with respect to recurrence rates. In low-resource settings, mesh is often either unavailable or unaffordable. To date, several studies using sterilized low-cost "mosquito mesh" have shown promising results with respect to patient outcomes and cost-effectiveness. Nevertheless, safe inguinal hernia repair in low resource settings remains logistically challenging. Although properly functioning small hospitals in rural areas can deliver effective basis low-cost surgical services, many suffer from a lack of trained staff and equipment. Operation Hernia aims to alleviate disease burden by short-term surgical missions, but more importantly by teaching and training local teams.

This year, the Dutch team, consisting of 8 surgeons and 6 surgical residents, travelled to Accra on January 6th. All medical supplies needed for a week of hernia surgery in Ghana were packed, and 28 suitcases made their way to Ghana. After an uneventful flight, Ghanaian customs let the team pass co-operatively and the first night was spent in Accra to avoid nocturnal driving to our final destinations.

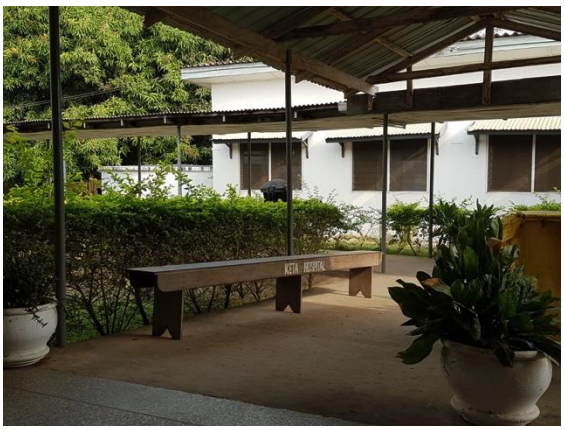
On Jan 7th, the team was split in two: 7 members made their way to Takoradi, the other half was brought to Keta. Both typical Ghanaian coastal towns, where the hospitals and their staff were awaiting our arrival.

Keta mission *(Maarten Simons, Frank Garssen, Anne Ottenhof, Renée Barendse, Olivier Wijers, Sebastiaan Festen, Martje vd Wilt)*



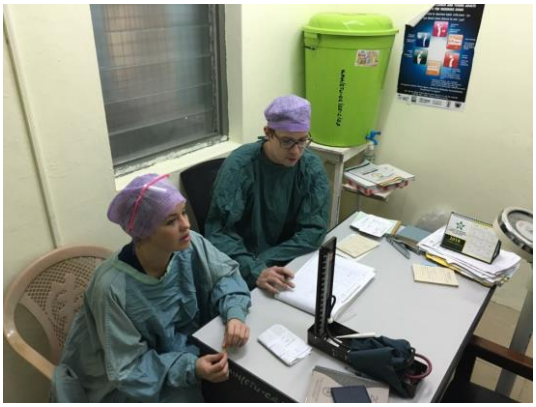
The Keta-team had a bit of a rough start, with a delayed bus and a driver who didn't quite seem to know the way to Keta, nevertheless, it was a fine way to submerge into the African way of life. An interesting ride through the desert-like surroundings, we stopped on the way to buy a few kilos of pineapples, made the 'Ghana-playlist' for some music during the operations and finally made it to our lodge in Keta. We were welcomed by our lovely host Irene, shown to our rooms and of course went for a swim in the salty Atlantic Ocean. In the evening, we had a short briefing on the coming week while enjoying our first Ghanaian beers; the discussion whether Star or Club is better, still has not ended.

On Monday we made our first ride to the hospital, in the back of the pick-up of the hospital administrator Serene Akpanya. Keta Municipal Hospital is a moderately-sized public hospital with an operating theatre including 3 operating rooms, where mostly emergency operations are performed.



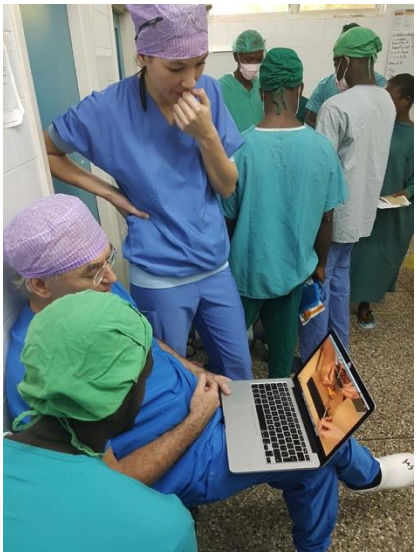
The hospital was well-prepared for our arrival: the OR was reserved for the hernia-operations, there were ample numbers of scrub-nurses and OR-staff and, most importantly, for the first time locals had been informed through What's-app and as a result, patients were waiting in line to be operated. Of course, they first needed to be screened:

we started every day in the outpatient clinic to see whether ‘our’ patients indeed had a hernia and if they were fit to be operated.

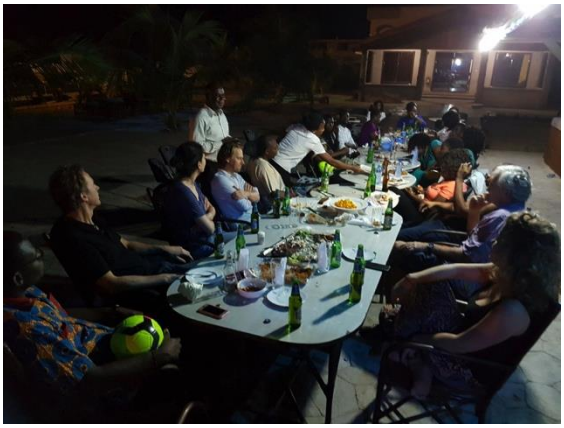


The hernias were classified using the Kingsnorth Hernia Grading system: H1 Groin hernia, spontaneously reducible; H2 Groin hernia, reducible with gentle manual pressure; H3 Inguino-scrotal hernia, reducible; H4 Inguino-scrotal hernia, irreducible. After the head nurse had made the daily schedule we were ready to start. During the week the Keta-team operated a total of 71 hernias. In all adult patients a Lichtenstein procedure was performed using a mesh, which were brought from Holland. Pediatric patients were treated with a hernia sac resection. Almost all patients were operated using local anesthetics. Spinal anesthesia was used in patients with bilateral hernias, large H3 or H4 hernias. Children were treated under general anesthesia with Ketamine. Besides the hernias we operated on 14 hydroceles.

Three local medical officers scrubbed in and learned the basic steps of the surgical procedures.



The evenings were filled with lots of good music, stories, drinks and rice with chicken or fish. Laughing was combined with an occasional cry (F.G.: John Denver - Leaving on a Jet Plane). On Thursday, our last night in Keta, we had a nice dinner with all the working staff of the OR including the hospital administrator and director.

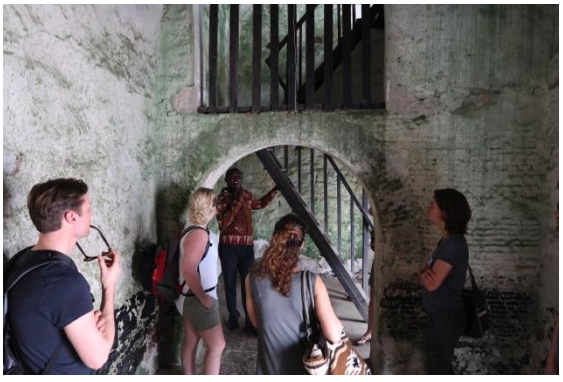


On Friday, after a few last operations and a last warm farewell including nice Ghanaian gifts we left Keta in the afternoon by bus to

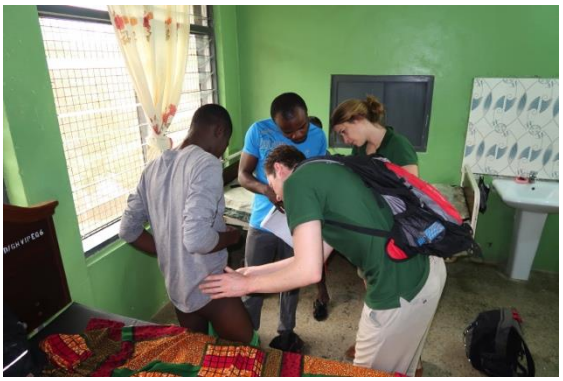
Accra. Here we met up again with the Takoradi team.

Takoradi mission *(Nanette van Geloven, Eddy Hendriks, Frank Ypma, Marjolein Leeuwenburgh, Erik Tanis, Anneke Jilesen, Oddeke van Ruler)*

Our group left early in the morning towards Takoradi. Halfway the long bus ride we visited Fort Elmina. Originally this fort was used for trading gold. Later in history Fort Elmina was used for slave trading by the English, the French, the Danes, the Swedish and by the Dutch. It was a confronting but worthwhile visit.



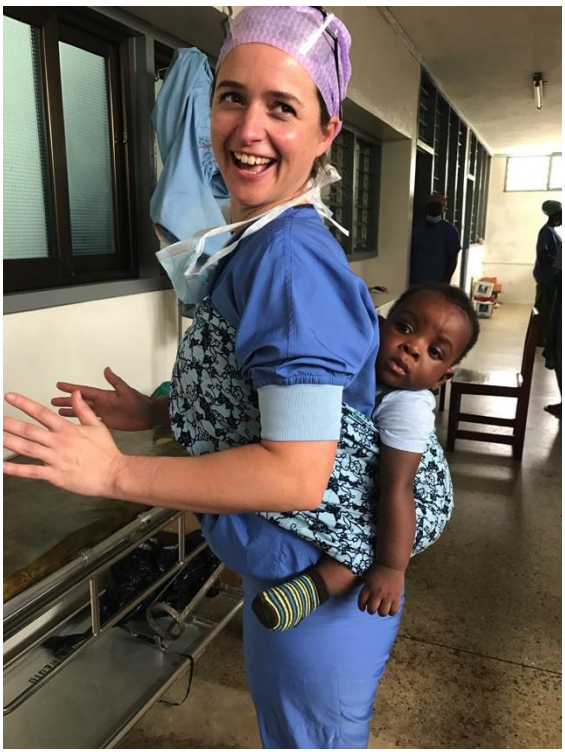
In the late afternoon we arrived at our hotel in Takoradi. Our host Lillian welcomed us, and she and her staff prepared a lovely meal. After a welcome cold drink and making the preparation for visiting the 3 hospitals, we turned in early for a fresh start the next day. Monday morning we split up to three groups and we went to the different hospitals in and around Takoradi: the Hernia Wing and GPHA in Takoradi and a hospital in Dixcove (about 45 min from Takoradi). The hospitals were well prepared for our visit and patients were already waiting for us. After a quick patient examination we could start our first operation of the day. We brought our own material such as meshes, stitches and gloves, not having to compromise the local medical supplies. We operated 122 hernia's, including 2 epigastric hernias, 10 hydroceles and 7 umbilical hernias. At the end of each day we returned to our hotel in Takoradi where we enjoyed a nice evening meal and shared our experiences of that day.



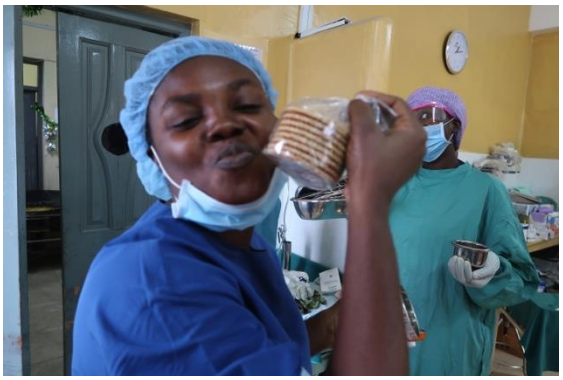
Next to the sublime interactions with the local staff and paients we also learned to deal with the other African 'experience', multiple daily power failures. At those moments there was no light, no cautery (electric knife) and even more challenging: no air conditioning. Noentheless, we could continue surgery with

the illumination by cellphone lights of the staff, until the power was restored or the backup generator coame online (if it was fueled). These challenging circumstances were especially valuable for the surgical residents joining the operation.

On Thursday we organized a dinner for all the staff of the three hospitals where Lillian and her staff served a variety of local cuisine. It was a valuable where we exchanged including stories of the last week and some of us learned how to backpack a baby.



On Friday morning we thanked the local OR personnel with a typical Dutch delicacy,“stroopwafels”. And we visited the children and maternity ward to handout toys and coloring books.



We went back to Accra where we rejoined with the Keta group. In our final weekend we stayed on the beach where we shared our experiences with each other while enjoying a cold beer and a nice meal. Needless to say, it was a special trip for all of us. Next to the hard work, it felt great to help and give something back to the people of Ghana. We look forward to next year!

Dutch Operation Hernia would like to express huge gratitude to the staff of the hospitals and the many locals that helped with transportation, hotel and catering.

The following sponsors made the mission possible:

MRC Foundation

Hilversum Rotary

Vrienden van Hoorn

Materials and medication offered kindly by our hospitals: OLVG, Tergooi, Amstelland, Albert Schweizer Hospital and UMCG.

Bard for mesh

Medtronic for diathermia materials

Chris Oppong for low cost mesh