

Neurosurgical Relief Effort in Africa

Robert Louis, MD, PhD

Recipient of the 2011 YNC Public Service Citation

In August-September of 2010, a multidisciplinary team from the University of Virginia embarked on a neurosurgical relief mission to Africa. Dr. Robert Louis, a PGY-4 resident in neurosurgery, organized a comprehensive team which included Marcel Durieux, MD (Professor in neuroanesthesia), Justin Ford, MD (PGY-4 in anesthesiology), and Kendall Greiner, CCRN (Neuro-Intensive Care nurse). The team travelled to Tanzania as part of the non-profit organization Madaktari, which was founded by another UVA neurosurgical alumnus, Dilantha Ellegala, MD, FAANS.

With a population of 41 million people and only three trained neurosurgeons, Tanzania has the worst doctor to patient ratio for neurosurgical care of any



Image 2: Dr. Louis teaching Tanzanian General Surgeon Dr. Emmanuel Saguda, performing emergency craniotomy for subdural hematoma evacuation.

country in the world. The prospects for improvement in this situation are grim, as regional training programs do not exist for neurosurgery and it is unlikely that a western trained neurosurgeon would relocate to rural Tanzania. In a novel attempt to solve this problem, Dr. Louis aligned himself with Dr. Ellegala of the Medical University of South Carolina. In 2006, after completing his neurosurgical residency at UVA, Dr. Ellegala founded Madaktari with the goal of establishing self-sustainable health care through training of local physicians, nurses, and health care staff. Their model was to use education, training, and resources available locally to establish the kind of health care that would be sustainable long after visiting western physicians vacated their temporary support posts. With a lifelong passion for education and humanitarian work, Dr. Louis expanded on this concept to include the entire spectrum of neurosurgical care. His idea was that in order to provide optimal neurosurgical care, the peri-operative and post-operative teams would also need education and training. Though a comprehensive approach, Dr. Louis' hope was to train the Tanzanian team to achieve the best possible outcomes while working with very limited resources.

Prior to departure, the team worked tirelessly to procure supplies and donations of equipment in order to maximize their capabilities once they hit the ground. Over the five weeks, they performed nearly fifty neurosurgical cases, working day and night to train the local surgeons, anesthesiologists, and support staff in emergency neurosurgical care. Their efforts were met with much enthusiasm from the local medical staff and significant progress was made towards advancing their regional capabilities. Upon returning to Virginia, the UVA Madaktari team remains driven to keep the effort alive and organized a return trip in September of 2011, led by fellow UVA neurosurgical resident, Ricky Medel, MD. Ultimately, Dr. Louis' goal would be to spend two months teaching neurosurgery in Africa each year.



Image 3: Dr. Louis teaching Tanzanian Orthopedic Surgeon Dr. Isidore Ngayomela, performing cervicothoracic instrumented fusion for a traumatic cervical fracture-dislocation.

“The real credit should go to Dilan,” Dr. Louis says, “his visionary leadership and continued efforts are what have made this all possible.” As a result of Ellegala's work, Madaktari has now expanded their mission to include Tanzania, Kenya, Uganda, and Ethiopia and has helped to organize the first neurosurgical residency training program for East Africa. Long frustrated by a lack of opportunities for neurosurgeons to work with international humanitarian relief efforts, Dr. Louis credits Dr. Ellegala and Madaktari for helping to bring his dreams to fruition.

In recognition of his work, Dr. Louis has been recognized by the American Association of Neurological Surgeons with the 2011 Young Neurosurgeons Committee Public Service Citation. This citation is awarded annually for extraordinary or unusual public service outside of any service specific to organized neurosurgery.

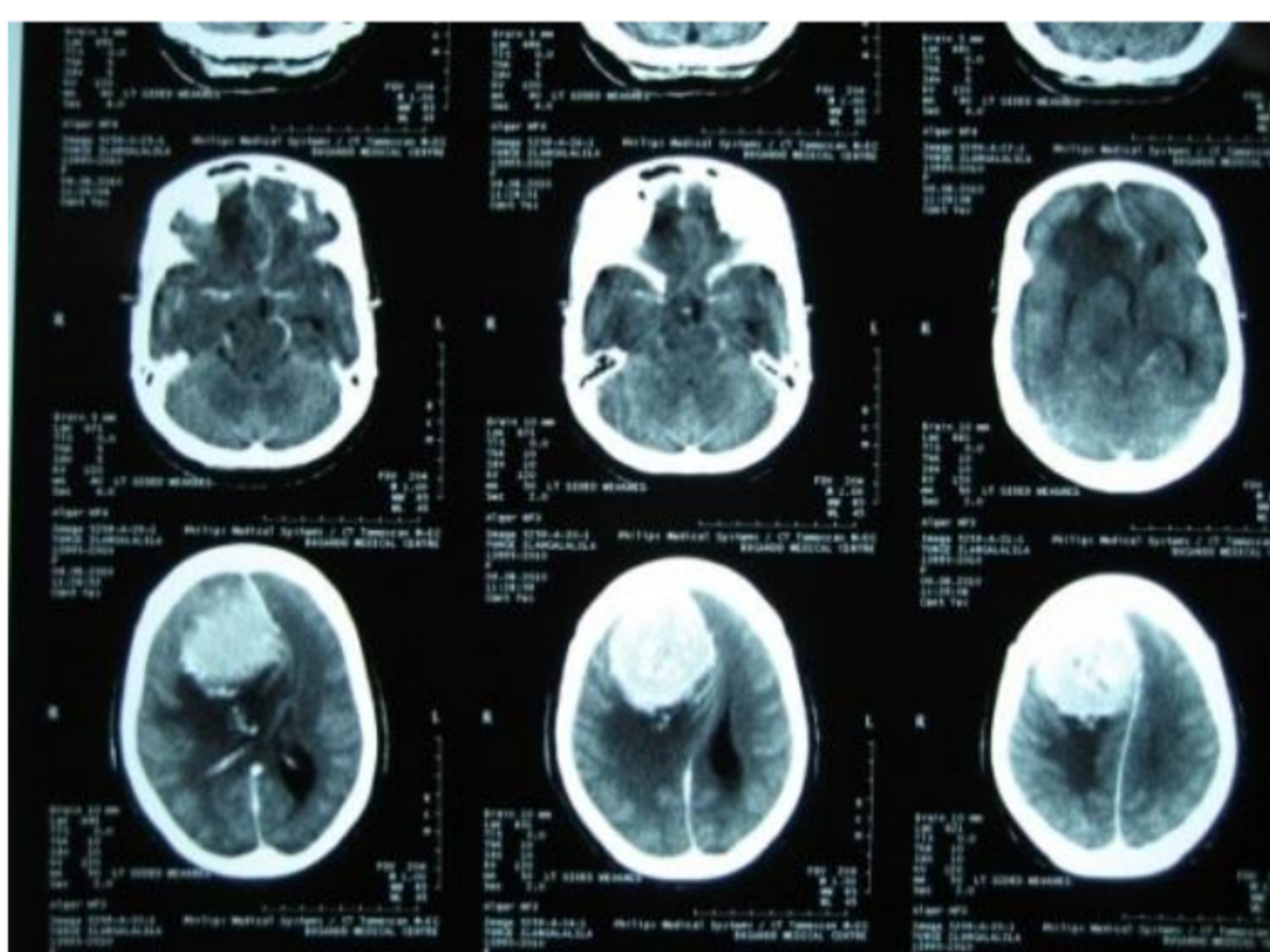


Image 4: Right frontal meningioma resected during the trip.



Image 5: Dr. Louis examining patient on neurosurgical teaching rounds in Tanzania.



Durieux MD (Professor of Anesthesiology), Kendall Greiner CCRN, Robert Louis MD (resident, neurosurgery), Justin Ford MD (resident, anesthesiology) in front of Bugando Regional Medical Center in