

## Early Diagnosis, Correct Treatment, and Miraculous Recovery



In 1958, Denis Burkitt, an Irish Surgeon working in Uganda was the first to report that a jaw sarcoma commonly seen in African children, which often spread to other body sites, was a single disease with different manifestations. The condition progressed rapidly, was not amenable to surgical cure, and invariably led to death in a short time. During his tour in America, he obtained an experimental drug – cyclophosphamide – which he administered to several of his near-death patients and he observed one of the most dramatic responses in cancer therapy. Reportedly, his patients began improving in less than a day,

and many recovered with the tumor miraculously disappearing. This seminal observation ushered in the era of cancer chemotherapy and led to development of better treatments.

The history of medicine is full of these miracles. Penicillin for bacterial infections, quinine for malaria, and vaccines for smallpox and polio ushered in miraculous cures. The use of an experimental drug for the Ebola virus in a missionary doctor triggered a miraculous reversal of symptoms from the disease. When well developed and introduced into routine care, these seminal discoveries cease to be seen as miracles, but as expected essentials of life.

For Burkitt lymphoma (BL), despite the pioneering work of Dr. Denis Burkitt in Uganda in the 1950's, many of the effective chemotherapy drugs are not standard treatment or routinely available at the hospitals or clinics where many of the cases are seen. Additionally, case spotting, referral, diagnosis, and treatment remain weak in many countries where the disease is common. Even when drugs are available, they are toxic and often cause the death of patients. Given this, the cure of BL in Africa today is still viewed as a miracle much as it was 50 years ago. Such a miracle was witnessed when Lucia Maji (pictured above) presented to the EMBLEM Study with facial, thoracic, and multiple abdominal tumors. Using a three-drug chemotherapy treatment, her tumors rapidly shrank within three days. To me, as her doctor, and to her and her family, this rapid response was nothing short of miraculous. Yet, from a scientific standpoint, this treatment needs to be improved to integrate the recent scientific discoveries in genomics which make the drugs simpler to administer and less toxic.

*Dr. Esther Kawira, Editor*

## EMBLEM UGANDA

A total of 545 (346 males, 199 females) potential cases have been spotted. Of these, 305 were eligible and 284 (179 males, 105 females) were enrolled.

The team continued with case sensitization in Kiryandongo District to equip health workers with skills to spot and refer cases to St. Mary's Hospital, Lacor for diagnosis and treatment.



**Clinicians training in Kiryandongo**

## EMBLEM KENYA

A total of 443 (287 males, 156 females) potential cases have been spotted. Of these, 200 were eligible and 163 (116 males, 47 females) were enrolled.

The team conducted two pilot control enrollment activities in Kadipo village in Nyanza Province and Mayai village in Western Province. The activities included training of Community Research Assistants, conducting a household census, and reviewing data collected and feedback. Dr. Mbulaiteye, the Principal Investigator of EMBLEM, supervised these activities.



Dr. Sam Mbulaiteye receives feedback from the Chief and the community in Kadipo village in Nyanza Province in Kenya

Future plans include standardization and harmonization of the control enrollment plan in Kenya with that in Uganda, where control enrollment has been underway for more than one year.

## EMBLEM TANZANIA

A total of 400 (218 males, 182 females) potential cases have been spotted. Of these, 89 were eligible and 82 (48 males, 34 females) were enrolled.

EMBLEM Tanzania received a new Land-cruiser to replace the one that crashed in February 2013. The replacement marks a major milestone representing the resilience of EMBLEM in Tanzania. With the vehicle, the team's plans for control enrollment will get back on track.



EMBLEM Vehicle for Tanzania replacement for vehicle lost in accident

## EMBLEM GOALS

In September 2012, EMBLEM staff held their first status update, harmonization and standardization meeting at the National Institute of Medical Research campus in Mwanza, Tanzania. Due to the positive feedback by staff and collaborating institutions, EMBLEM will hold a 2<sup>nd</sup> Status Update and Scientific meeting at the Kenya Medical Research Institute campus in Kisumu in Kenya. These meetings are useful for harmonizing study procedures across EMBLEM sites, for building strong partnerships with local institutions, and for training and empowering staff to be scientists of the future in East Africa.



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