

Burkitt Lymphoma is a Medical Emergency



Few cancers qualify to be a medical emergency – to be treated with haste to save a patient's life, but Burkitt lymphoma (BL) qualifies as one. The most rapidly growing tumor known, BL often

presents as a mass impinging on a critical part of the body, such as the eye or the spinal cord causing pressure on or in the nervous system (see pictures at left) or obstructing the airway. Given the rapid tumor growth, immediate diagnosis and treatment of BL becomes imperative to save function. This experience led early BL clinicians to develop cytology made from a tumor touch preparation or fine needle aspiration as a standard means for rapid diagnosis. Without treatment, rapid diagnosis would not be helpful for the patient or the doctors. However, BL is exquisitely sensitive to chemotherapy and the tumor, when exposed to it, shrinks rapidly, thereby making emergency diagnosis and emergency treatment of BL one of the central tools in BL care.

These BL emergencies are routinely encountered in the EMBLEM study. A patient came to one EMBLEM site with mild eye swelling of one side, weakness to walk well, and seizures, but no fever. A spinal tap revealed clear fluid under high pressure (ophthalmoscopy not available for this report). Suspecting BL, chemotherapy was administered and the child's seizures stopped. The eye swelling resolved with further cycles of treatment. This BL patient had already been enrolled elsewhere in the EMBLEM study, but he had abandoned treatment early.

Another child was brought to the hospital with loss of vision for three days. Exam revealed a BL tumor on both sides of the palate, apparently starting to compress both of the optic nerves at once. That child was given BL chemotherapy within 24 hours, and in three more days he was able to see normally again.

These cases illustrate the need to be ready to act quickly when a diagnosis of BL is suspected. Even when conducting research such as EMBLEM, the interaction must remain firmly focused on the patient - to deliver rapid diagnosis and treatment and slow disease growth to save a life.

- Dr. Esther Kawira – Editor

EMBLEM UGANDA

The team has enrolled 1020 matched population controls, 950 pilot population controls, and 184 health-center pilot controls. With the completion of control enrollment in Uganda, the team is focusing on data cleaning in preparation for primary analysis. Additionally samples will be shipped to the NCI to conduct DNA extraction for genotyping for GWAS and studies of genetic population structure in the EMBLEM study area.

EMBLEM KENYA

In the month of January, 15 cases (9 males, 6 females) were spotted bringing the total spotted to 524 (334 males and 190 females). Eight out of the 15 spotted (4 males and 4 females) were eligible and enrolled bringing the total to 205 eligible and enrolled cases (148 males and 57 females).

EMBLEM Kenya is enrolling controls in 100 randomly selected villages with the help of community research assistants (CRAs).

EMBLEM TANZANIA

Eight new cases were spotted in Tanzania in February and bringing the number of cases spotted to 440 (244 males, 196 females). Four (2 males, 2 females) of the spotted cases were eligible and enrolled in the study, bringing the total number of enrolled cases to 106 (61 males, 45 females).

The team has recruited about half of the CRAs that will be needed for MPC enrollment, 100 CRAs from 100 villages will be involved in the exercise. The detailed work plan for MPC enrollment has been developed and is being reviewed before the exercise starts being implemented.

EMBLEM GOALS

EMBLEM aims to generate similar data across the different sites in East Africa. One way to achieve this goal is through cross training of teams. However, because this happens occasionally, when teams from one area can join another team in another area, EMBLEM encourages local teams to have weekly meetings to review their SOPs, discuss experiences, and raise outstanding issues. In some cases, they will review their previous recordings together and then discuss and clarify misconceptions. The photo at right shows the EMBLEM Team at Homa Bay in Kenya reviewing a recording featuring Associate Professor Constance Tenge discussing the EMBLEM work in Kenya. This ensures harmony in the message carried by the EMBLEM Team to the community where they work.



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