

Abstracts of the 9th European Congress on Tropical Medicine and International Health

and physiotherapeutical interventions to efficiently prevent long-term sequelae.

DISCLOSURE Nothing to disclose.

PSI.192**Epidemiology of Buruli ulcer in the Mapé Dam region of Cameroon: a longitudinal study**

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Buruli ulcer (BU) is a neglected tropical disease of the skin and subcutaneous tissues caused by *Mycobacterium ulcerans*; it can affect indiscriminately male and female of different ages and it is typically found in rural areas close to water bodies. Although risk factors for BU such as proximity to water, not wearing protective clothing and poor wound care have been identified, the mode of transmission and the natural reservoir of *M. ulcerans* remain under investigation. Following a district-wide survey for BU in the Bankim District of the Adamawa Region of Cameroon in early 2010, we locally established a disease surveillance system and continuously monitored the occurrence of new BU cases in the entire Mapé Dam region over 5 years. The collection of clinical information and details regarding the origin of all the patients notified, allowed us to longitudinally study the epidemiology of BU in the area. From March 2010 until the end of 2014, 142 laboratory re-confirmed cases of BU were registered in the area. As previously reported from this and other BU endemic areas, the incidence of BU was highest in young teenagers and in adults above the age of 50 while in children below 5 years the incidence is low. Male and female were equally represented among the cases and the majority of the reported patients had ulcerative lesions on the lower limbs. Analysis of the geographic distribution of the households and farms where the patients lived and worked prior to the onset of the BU symptoms, revealed an evolution of the spatial distribution of BU cases over time with a decrease of cases in the proximity of the Mapé Dam, while there was a continuous presence of BU cases along the Mbam river. The BU surveillance system we established in the Mapé Dam has allowed us to continuously monitor the population living in that area, resulting in a comprehensive epidemiological analysis of BU in the area over the last 5 years.

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DISCLOSURE Nothing to disclose.

PSI.193**Evaluation of antifungal activities of *Bifidobacterium bifidum* and *Lactobacillus fermentum* against toxigenic *Aspergillus*****parasiticus**

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BACKGROUND Aflatoxins are one of the most important global concerns, especially in developing countries. They cause a wide

spectrum of serious medical problems in human and animals as well as economic losses.

AIMS This study evaluated the effect of *Bifidobacterium bifidum* PTCC 1644 and *Lactobacillus fermentum* PTCC 1744 isolates on the fungus growth rate and aflatoxin production in toxigenic *Aspergillus parasiticus*.

METHODS Mycelial growth inhibition of toxigenic *Aspergillus parasiticus* in the presence of *Bifidobacterium bifidum* and *Lactobacillus fermentum* was investigated by pour plate technique and weighting method of mycelial mass. Reduction of aflatoxin was evaluated in yeast extract sucrose broth (YESB) at 30°C after 7 days of incubation using HPLC method. Also, reduction of aflatoxin rate was observed in the presence of the metabolites of lactic acid bacteria by HPLC method. The data were analyzed by SPSS 21.

RESULTS Presence of *Bifidobacterium bifidum* and *Lactobacillus fermentum* significantly affected the growth rate of *Aspergillus parasiticus* in comparison with controls without lactic acid bacteria ($P \leq 0.05$). Percentage of reductions in total aflatoxin and B1, B2, G1, G2 fractions by *Bifidobacterium bifidum* and *Lactobacillus fermentum* were more than 99%. Furthermore, the percentage of reduction of standard aflatoxin B1, B2, G1, G2 fractions by metabolites produced of lactic acid bacteria were approximately 88.8–99.8% ($P \leq 0.05$).

CONCLUSION *Bifidobacterium bifidum* and *Lactobacillus fermentum* can be employed as good biocontrol agents against growth and aflatoxin production by aflatoxigenic *Aspergillus* species.

DISCLOSURE Nothing to disclose.

PSI.194**Improving wound care in Buruli ulcer at Ga west and Ga south municipality**

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INTRODUCTION We previously identified secondary wound infection as one factor that could delay wound healing in Buruli ulcer. Some implicated factors were poor nursing practices and infection control. Using an architectural plan provided by an infection control specialist, an old dressing room was refurbished such that clean and dirty wounds would not be dressed in same room or beds as was previously being done to break the chain of cross infection.

MATERIALS AND METHODS A simple wound care manual and 2 posters were developed to guide proper management of wounds. Health workers involved in wound care were selected from all the sub districts in the Ga West and South Municipalities and then trained using the manual and posters; both theoretical and practical sections were held. A per-test and a post-test were conducted for participants on basic concept of wound care. Participants were taken through Prevention of Disability sessions using charts provided by the American Leprosy Mission.

RESULTS In the per-test prior to training, 40% scored between 50 and 60, 10% scored between 60 and 65 while 50% scored below 50. Adequate knowledge was gained after the training.