38

INTEGRATED PREVALENCE SURVEY OF SKIN NTDS AND COMMON SKIN DISEASES AMONG SCHOOLCHILDREN IN GAGNOA, CÔTE D'IVOIRE: DIAGNOSIS AND RISK FACTOR ANALYSIS

Rie R. Yotsu[1], Amari Akpa[2], Konan N'Guessan[2], Aubin Yao[2], Aka N'Guetta[3], Emma Yeboue[4], Norihisa Ishii[5], Kouamé Kouadio[3], Tape R. Djakeaux[4], Julien Aké[6], Marie Constance A. Kadio[7], Bamba Vagamon[7]

[1]National Center for Global Health and Medicine, Tokyo, Japan, [2]MAP International, Abidjan, Côte D'Ivoire, [3]Pasteur Institute, Abidjan, Côte D'Ivoire, [4]National Leprosy Control Program, Abidjan, Côte D'Ivoire, [5]Leprosy Research Center, Tokyo, Japan, [6]Effect Hope, Abidjan, Côte D'Ivoire, [7]Raoul Follereau Institute, Abidjan, Côte D'Ivoire

Many neglected tropical diseases - including Buruli ulcer (BU), leprosy, and yaws - present with skin symptom(s) (skin NTDs). They are co-endemic in Côte d'Ivoire which reports the highest number of BU cases globally. Children are especially vulnerable to these, as well as to a large number of common skin diseases (CSDs), but their epidemiology is incompletely understood. In the Gagnoa district of Cote d'Ivoire, we performed a school-based skin survey for early detection and treatment of skin NTDs and CSDs; and to describe the distribution and the risk factors of these diseases. The program consisted of two phases: 1) screening by a team of village nurses of all primary schoolchildren aged 5 to 15 in a total of 38 schools, and selection of those presenting with any skin lesion(s); 2) sensitization campaign followed by in-school examination of screened children by two medical teams including dermatologists, leprosy and BU experts, and laboratory technicians. A total of 9,930 children (9.2% of all schools in the district) were pre-screened by the village nurses, yielding 1,781 children with skin conditions. These, and an additional 883 children who self-reported skin disease(s) following sensitization campaign were consulted by the medical teams. Among these, we identified 8 cases of skin NTDs: 3 BU and 1 post-BU with contracture; 1 confirmed and 1 suspected leprosy; and 2 suspected yaws were found. For CSDs, the majority of diagnoses were fungal infections including tinea capitis (n=1220, 46%) and pityriasis versicolor (n=1052, 39%), but others included such diseases as scabies (n=68, 2.6%) and eczema (n=35, 1.3%). Survey on demographics and personal hygiene, e.g., washing hands, use of soap, nail cutting, was conducted. Treatment for skin NTDs and prescription for CSDs were provided. The program had a high rate of community acceptability. This was the first attempt at an integrated, multi-skin NTD and CSD screening and diagnosis in the country. This strategy has the potential of improving early detection of NTDs, especially in areas of co-endemicity. CSDs are highly prevalent and should be integrated in skin NTD control measures.

39

DRAMATIC INCREASE IN THE PARTICIPATION WITH MECTIZAN TREATMENT IN SECOND ROUND OF TEST AND TREAT IN AN AREA COENDEMIC FOR LOIASIS AND ONCHOCERCIASIS

Joseph Kamgno[1], Sebastien D. Pion[2], Hugues Nana-Djeunga[3], Cédric B. Chesnais[2], André Domche[3], Raceline Gounoue-Kamkumo[3], Guy-Roger Njitchouang[3], Wilma A. Stolk[4], Daniel A. Fletcher[5], Charles D. Mackenzie[6], Amy D. Klion[7], Thomas B. Nutman[7], Michel Boussinesq[2]

[1]Centre for Research on Filariasis and other Tropical Diseases, and Faculty of Medicine and Biomedical Sciences University of Yaounde I, Yaounde, Cameroon, [2]IRD UMI 233-INSERM U1175-Montpellier University, Montpellier, France, [3]Centre for Research on Filariasis and other Tropical Diseases, Yaounde, Cameroon, [4]Department of Public Health, Erasmus MC, University Medical Center, Rotterdam, Netherlands, [5]Department of Bioengineering, University of California, Berkeley, CA, United States, [6]Department of Pathobiology and Diagnostic Investigation, Michigan State University, East Lansing, MI, United States, [7]Laboratory of Parasitic Diseases, National Institute of Allergy and Infectious Diseases, Bethesda, MD, United States

Ivermectin-based mass drug administration has revolutionized onchocerciasis control over the last 30 years, and the target shifted from control to elimination. Although transmission of infection has been interrupted in some *foci*, the fear of serious adverse events (SAEs) in Loa loa co-endemic areas in Central Africa has been an obstacle to elimination. Millions of people were excluded from mass drug administration, because the risk of SAE in people with high *Loa loa* mf counts (>20000 mf/ml) was considered too high. The Test and (not) Treat (TNT) strategy has been developed as a way forward. TNT relies on the LoaScope to rapidly identify *Loa loa*-infected people "at risk" for SAEs and exclude them from ivermectin treatment. To provide proof of principle, TNT strategy was implemented in Okola Health District, Cameroon in 2015, where 15469 people were treated with ivermectin without SAEs occurring. The therapeutic coverage rate in Okola was 67.7%, a level felt to reflect a reluctance of the population to participate due to the fact that 23 SAEs occurred in this district during the first (and only) Community-Directed Treatment with Ivermectin in 1999. As a prelude to the second TNT campaign in March 2017, a press briefing was held by the Cameroonian Minister of Public Health and Minister of Communication emphasizing the success of the TNT strategy in 2015 and the absence of SAEs. Traditional rulers of the villages with the best participation rates in 2015 were awarded during the launching of the 2017 campaign. With this additional sensitization, between 13 March and 9 April, 11472 individuals participated in the TNT screening. The mean number of patients treated daily in 2017 was significantly higher than in 2015 (459 vs. 352, P= 0.002), and total population coverage in the district is expected to exceed that seen in 2015. Our data suggest that both the absence of SAEs in the 2015 TNT campaign and the communication efforts made prior to the launching of the 2017 campaign were important factors in increasing adherence to the TNT strategy. This is very encouraging for the implementation of the TNT strategy across the *Loa* endemic regions in Central Africa.

40

LYMPHATIC FILARIASIS TRANSMISSION ASSESSMENT SURVEYS (TAS) AS AN OPPORTUNITY TO EVALUATE THE IMPACT OF MASS DRUG ADMINISTRATION (MDA) ON TRANSMISSION OF ONCHOCERCIASIS AND SOIL TRANSMITTED HELMINTHIASIS

Hugues Nana Djeunga[1], Rufine Touka-Nounkeu[1], Jules Brice Tchatchueng Mbougua[1], Guy Roger Njitchouang[1], André Domche[1], Julie Akame[2], Georges Nko'o-Ayissi[3], Benjamin Didier Biholong[3], Yaobi Zhang[4], Kizito T Ogoussan[5], Maria P Rebollo[6], Joseph Kamgno[7]

[1]Centre for Research on Filariasis and Other Tropical Diseases, Yaoundé, Cameroon, [2]Helen Keller International, Yaoundé, Cameroon, [3]Ministry of Public Health, Yaoundé, Cameroon, [4]Helen Keller International, Regional Office, Dakar, Senegal, [5]NTDs Support Center, Task Force for Global Health, Decatur, GA, United States, [6]Expanded Special Project for Elimination of NTDs, World Health Organization-AFRO, Brazzaville, Republic of the Congo, [7]Centre for Research on Filariasis and other Tropical Diseases, and Faculty of Medicine and Biomedical Sciences, Yaoundé, Cameroon

The control of neglected tropical diseases (NTDs) reached new possibilities when MDA became the platform to simultaneously target multiple NTDs amenable to preventive chemotherapy (PC). The rationale for this integrated approach is the geographic overlap of highly-prevalent NTDs and the availability of donated PC drugs. It has been shown that Albendazole, Mebendazole, Ivermectin or Diethylcarbamazine can be safely co-administered in almost any combination, rendering feasible the control of Soil Transmitted Helminthiasis (STH), onchocerciasis (Oncho) and lymphatic filariasis (LF). A comprehensive algorithm was built by the GPELF