Prevalence, Risk Factors and Community Perception of Lymphatic Filariasis Among Adults in the Bwarri Area Council

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ABSTRACT

Lymphatic filariasis (LF), a neglected tropical disease caused primarily by *Wuchereria bancrofti* and transmitted via mosquito vectors, remains a significant public health challenge in Nigeria, with an estimated 22 million people infected and over 100 million at risk. Despite control efforts like mass drug administration (MDA), persistent transmission is driven by environmental, socio-economic, and behavioral factors. This study aimed to assess the prevalence, identify risk factors, and evaluate community perceptions of LF in Bwari Area Council, Federal Capital Territory, Nigeria. A descriptive cross-sectional study was conducted among 425 residents of Bwari Area Council who had lived in the area for over two years. Using a multi-stage sampling method was used, data were collected through structured questionnaires, interviews, and parasitological tests (Immunochromatographic Test, ICT) to detect circulating filarial antigens, with blood samples collected between 10:00 PM and 2:00 AM due to the nocturnal periodicity of *W. bancrofti*. Descriptive statistics and chi-square tests were used to analyze prevalence, risk factors, and community knowledge, attitudes, and practices (KAP) using SPSS software. The study found a high level of LF awareness (85.4%), with health workers (46.6%) and mass media (44.9%) as primary information sources. However, misconceptions persisted, with 12.2% attributing LF to dirty water, 9.2% to witchcraft, and 7.1% to curses. Mosquito bites were correctly identified as the cause (64.7%) and transmission mode (70.1%) by most respondents. Common symptoms recognized included swollen legs (50.3%) and scrotal swelling (24.9%). Attitudes toward LF prevention were positive (71.3% believed it was preventable), but only 28.2% considered LF a serious community health issue. Discrimination against LF patients was reported by 43.1%. Behavioral risk factors included inconsistent mosquito net use (34.8% did not use nets regularly) and limited use of repellents (53.2%). MDA participation was high (72.9%), though adherence was inconsistent (51.1% always complied), with fear of side effects (10.1%) and disbelief in efficacy (5.4%) as barriers. Parasitological tests revealed zero prevalence of active LF infection, but 14 participants (3.3%) exhibited chronic symptoms (e.g., swollen limbs), primarily among those over 30 years, farmers (6.8%), and the unemployed (6.7%). No statistically significant associations were found between clinical symptoms and age, gender, education, marital status, or knowledge levels, though occupational status showed a significant association ($p = 0.027$). In conclusion, while active LF infection was not detected, the presence of chronic symptoms indicates past exposure and ongoing morbidity. High awareness coexists with persistent misconceptions and suboptimal preventive behaviors, highlighting the need for targeted health education and improved MDA adherence. Occupational and socio-economic factors, particularly among farmers, underscore the importance of tailored interventions to address environmental and behavioral risks. Strengthening community engagement and addressing stigma could enhance LF control efforts in Bwari Area Council toward achieving WHO elimination goals.

Keywords: Lymphatic Filariasis, Prevalence, Risk Factors, Community Perception

DOI: 10.21467/abstracts.8.7 ISBN: 978-81-998984-4-8 (eBook)