



Clinical outcomes of adults with suspected encephalitis and meningitis in a high HIV prevalence setting, Blantyre, Malawi

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Central Nervous System (CNS) Infections like Meningitis cause severe morbidity and mortality particularly in the presence of Human Immunodeficiency Virus (HIV). This may result from delay in diagnosis, treatment and severe immunosuppression. African countries such as Malawi have a high HIV burden. Antiretroviral therapy (ART) coverage in Malawi has improved with introduction of test and treat and 95-95-95 goals. The aetiology and outcomes of neurological infections in the period of scale-up of ART remains to be explored. This study aimed to investigate the patient characteristics, aetiology, and outcomes of adults with suspected meningitis in this era. A prospective cohort study was conducted at Queen Elizabeth Central Hospital, 574 patients were recruited, 374 (65.2%) were HIV positive. Of the 574, 118 (20.6%) died in hospital: 87/118 (73.7%) of the deaths were HIV positive and 27/ 118 (22.9%) were HIV negative and the remaining 3.4% had unknown HIV status. 106 (18.5%) had a microbiologically confirmed diagnosis; 14 had Tuberculous meningitis (TBM), 49 had Cryptococcal meningitis (CCM), and 43 had acute bacterial meningitis (ABM). 68% of the patients received empirical intravenous (IV) broad spectrum antibiotics for more than 48 hours. Inpatient mortality for TBM was 42.9 %, for CCM was 38.8% and for ABM was 27.9%. High mortality rates and morbidity were associated with HIV positive status and a TBM or CCM diagnosis. Definitive diagnosis remains a challenge in Malawi due to lack of and delay of appropriate investigations. This may lead to inappropriate use of IV antibiotics which may contribute to Antimicrobial resistance.

