

Prevalence of human immunodeficiency virus infection: its impact on the diagnostic yields in exudative pleural effusions at the Kenyatta National Hospital, Nairobi

Abstract:

This was a descriptive cross-sectional study carried out at Kenyatta National Hospital (KNH), Nairobi, among consecutively admitted adult patients with exudative pleural effusions over a one year period. The aim of the study was to determine the prevalence of human immunodeficiency virus (HIV) infection in these patients and to compare the diagnostic yields from the pleural fluid and pleural biopsy between the HIV seropositive and HIV seronegative patients. Sixty six patients were studied, with a mean age of 33.8 (+/- SD = 15.6) years and a male to female ratio of 1.6:1. Overall, 27 patients(40.9%) were found to be HIV seropositive. The commonest cause of exudative pleural effusions, overall, was tuberculosis (78.8%) followed by neoplasms (7.6%). Comparing the aetiology of exudative pleural effusion in HIV seropositive and HIV seronegative patients, tuberculosis was still the commonest cause accounting for 42.3% and 57.7% of the cases in each of the groups respectively. Conversely, 42.3% of patients with tuberculous pleural effusions were HIV seropositive. There was no significant difference in yields from pleural fluid, pleural biopsy culture and histology in the diagnosis of tuberculosis in the two patient groups. The only two patients with empyema were HIV seropositive and the bacterial isolates were *Salmonella typhimurium* and *Pseudomonas aeruginosa*. Kaposi's sarcoma was the cause of exudative pleural effusion in the one HIV seropositive patient with a malignant effusion. The only patient with a parapneumonic effusion was HIV seronegative. No fungi were isolated. PIP: 66 adult patients of mean age 33.8 years with exudative pleural effusions were studied to determine the prevalence of HIV infection and compare the diagnostic yields from the pleural fluid and pleural biopsy between the HIV-seropositive and HIV-seronegative patients. The patients were consecutively admitted to Kenyatta National Hospital (KNH) over a 1-year period and of male:female ratio 1.6:1. 27 patients were found to be HIV seropositive. Tuberculosis (TB) and neoplasms were the most common causes of exudative pleural effusions, responsible for 78.8% and 7.6% of cases, respectively. Comparing the etiology of exudative pleural effusion in HIV-seropositive and HIV-seronegative patients, TB remained the most common cause, accounting for 42.3% and 57.7% of cases in each of the groups, respectively. 42.3% of the patients with TB pleural effusions were HIV seropositive. No significant difference was identified in the yields from pleural fluid, pleural biopsy culture, and histology in the diagnosis of TB in the 2 patient groups. The only 2 patients with empyema were HIV seropositive and the bacterial isolates were *Salmonella typhimurium* and *Pseudomonas aeruginosa*. Kaposi's sarcoma was the cause of exudative pleural effusion in the 1 HIV-seropositive patient with a malignant effusion. The only patient with a parapneumonic effusion was HIV seronegative. No fungi were isolated