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RESEARCH ARTICLE

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RELATIONSHIP BETWEEN PATIENTS SHOWING MULTIPLE LYMPHADENOPATHY AND HIV INFECTION IN ONITSHA METROPOLIS, ANAMBRA STATE, NIGERIA.

ABSTRACT

Four hundred and seventy eight (478) individuals who exhibited some manifestations of chronic and debilitating illness including persistent cough, skin cancer and dermatitis, multiple lymph adenitis, diarrhea and enteritis, genital sore, urethritis, vaginitis, and weight loss were examined to establish relationships between human immuno-deficiency virus (HIV) infection and multiple lymph adenopathy (MLA). There was a significant relationship between MLA and HIV infection.

Keywords: Multiple lymph adenopathy, Weight loss, HIV, Vaginitis and Adenitis.

INTRODUCTION

Multiple lymph adenopathy (MLA) was rare before HIV epidemic (Rosenblum *et al*., 1988). It occurred mainly in lymphomas, patients with congenital or acquired hypoglobulinaemia, Epstein Bar Virus and other microbial infections (Grierson and Purtilo, 1987, Goroll and Mulley, 2005). Infection by HIV renders their victims immuno-incompetent resulting in proliferation of opportunistic infection that overwhelms the lymphatic system which is part of antibody generating mechanism leading to axial, cervical and inguinal enlargement (Singer *et al*., 1977, Moor *et al*., 2008). The study is aimed at establishing or not, a relationship between multiple lymphy adenopathy and HIV.

MATERIALS AND METHOD

SAMPLED POPULATION

Individual under study were four hundred and seventy eight (478), some showed multiple lymph nodes at axial, cervical and inguinal regions, others showed only signs and symptoms of HIV including weight loss, diarrhea, persistent fever and malaise. They were referred patients from Government General Hospital and private hospitals and patients coming to FEZI Medical Laboratory by references.

SAMPLE COLLECTION

Samples for Western blot analysis and CD4 Count were taken and described. All individuals under test were examined clinically for presence or absence of lymph nodes at the cervical, axial and inguinal regions supervised by a consultant physician, Dr. P. Obiegbu (Director of Health, Anambra State).

ANALYSIS OF SAMPLES

Four hundred and seventy eight individuals were physically examined by a consultant physician. Pictures of the lymph nodes enlargements were taken by means of a camera. Records of bio-data e.g. age, sex, location, symptoms, marital status were taken.

A statistical analysis of values of prevalence of MLA in HIV positive and negative individuals were carried out at $\rho \leq 0.05$ with respect to age, location, gender and occupation.

RESULT

RELATIONSHIP BETWEEN MULTIPLE LYMPH ADENOPATHY AND HIV INFECTION

A total of twenty-four (24) individuals in the test group were found to have multiple lymph adenopathy eighteen (18) had HIV positive prevalence rate 10.65% and six (6) HIV negative prevalence ratio of 1.94%. Also, four hundred and fifty four (454) had no multiple lymph adenopathy out of which one hundred and fifty one (151) had HIV positive results while three hundred and three (303) had HIV negative.

There was a significant relationship between multiple lymph adenopathy and HIV infection X^2-17.4, df = 1, $\rho \leq 0.05$ N = 487, with HIV positives recording more multiple lymph adenopathy. The relative risk was 2.26.

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Table 1: **Relationship between Multiple Lymph Adenopathy (MLA) and HIV Infection**

Manifestation	**HIV positive**		**HIV Negative**	**Total**	**Relative Risk**	**Chi. Square**	**Sig. at** $\rho \leq 0.05$	
	Number Affected	**Prevalence %**						
Multiple lymph Adenopathy	18	10.65	6	24	2.26	17.4	Sig.	
No multiple Lymph Adenopathy	151	89.35	303	454				
Total	169		309	478				

There was a significant relationship between MLA and HIV infection (X^2-17.4, df = 1, $\rho \leq 0.05$ N = 487)

DISCUSSION

There was a significant relationship between multiple lymph adenopathy (MLA) and HIV infection. The occurrence of multiple lymph adenopathy was 2.26 times more in individuals with HIV infection than those with no HIV infection. It follows from the above statement of relative risk 2.26 that generalized lymph adenopathy is a potent indicator of HIV infection. This position agreed with the work of some scientists (Metroka, 1985 and CDC, 1982). MLA was rare before HIV epidemic (Rosenblum *et al.*, 1988). It occurred mainly in lymphomas, patients with congenital or acquired hypoglobulinaemia and Eostein Bar virus infection (Grierson and PUrtilo, 1987).

A total of twenty four individuals with MLA from four hundred and seventy eight individuals in the study with eighteen from the twenty four recording HIV positive and six HIV negative suggests that MLP should not be ignored as a predictor of HIV infection. Infection by HIV renders their victims immuno incompetent resulting in proliferation of opportunistic infection that overwhelms the lymphatic systems which is part of antibody generating mechanism leading to axial, cervical and ongeninal enlargement (Moor *et al*., 2008, Singer et al., 1977, Chau *et al*., 2003).

Some of the individuals with MLA and HIV negative could be cases of lymphoma (Hodkins and non-Hodkins) or other conditions affecting reticulo-endothelial system which manifest as multiple lymph adenopathy (Brusch and Weintein, 1988, Mohan *et al.*, 2007).

HIV infection and AIDS present an immuno deficient status prompting many opportunistic infections, neoplasm and pathogens to thrive at various sites of the body causing inflammatory process that manifest as lymph node enlargements (Singer *et al*., 1977, Yuan and Li, 2010).

There was no significant difference in MLA disease in HIV positive and negative for all the professional groups except students that recorded more MLA in HIV positive.

In HIV positive individuals women were more at risk 4.13% prevalence, males 3.39%. In HIV negative males were more at risk 1.69%, females 0.83% prevalence in this study. For both HIV positive and negative individuals in this study, there was significant difference in MLA occurrence with more cases of MLA in HIV positive cases. However, when MLA males and females with HIV positive were compared, there was no significant difference. Similarly, there was no significant difference in MLA occurrence in males and females with HIV negative.

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