1. Among 1146 pregnant women, 26 members were HIV+ve (2.26%).

2. Among 979 members attending to the VCTC, 112 members were HIV+ve (11.4%), 106 were male and 16 were females.

Conclusion: The above study shows that there is prevalence of 11.4% of HIV in VCTC, 2.26% in pregnant women and 0.44% in blood donors. So there is increased need of awareness of AIDS by Health Education in General public as well as in Risk groups.

HIV

96. Comparison of Absolute Lymphocyte Count with CD4 Counts as a Marker of Immunological Improvement in HIV Patients on Highly Active Anti-Retroviral Therapy in a Tertiary Care Service Hospital

K Shanmuganandan, S Kumaravelu, SS Vaishampayan, K Kumar

Armed Forces Medical College and Command Hospital (SC), Pune.

Introduction: Triple drug HAART (Zidovudine, Lamivudine and Nevirapine) is indicated in HIV patients with CD4 counts < 200/mm³ and presence of opportunistic infection irrespective of CD4 counts. Absolute lymphocyte count is a simple, cheap alternative for CD4 counts.

Methods: We compared the CD4 counts done by flow cytometry with absolute lymphocyte count estimation done by automated cell counter.

Observation: 80 cases of HIV infection where HAART was started was included in the study. Base line Hematological, Immunological and opportunistic screening was done along with clinical and demographic parameters. CD4 count, CD8 counts and CD4% percentage and Absolute lymphocyte count was done at baseline and thereafter on three monthly basis. Comparison of rise of both these parameters was done. Correlation of these parameters was done with clinical improvement. There was no statistically significant (p < 0.05) difference between increase in CD4 count and Absolute lymphocyte counts.

Results: Absolute lymphocyte counts along with clinical parameters can be used as a cheaper alternative to CD4 counts in patients with HIV infections and HAART in developing countries.


S Chandra Babu

District Hospital, Kadapa, AP.

Aims and Objectives: This study was done to know the prevalence of HIV in pregnant Women, Blood Donors and persons attending to VCTC.


1. 1146 pregnant women were screened for HIV attending to the Ante-Natal check up.
2. 1569 Blood Donors were screened for HIV.
3. 979 members were screened for HIV attending to the VCTC.

Results:

1. Among 1146 pregnant women, 26 members were HIV+ve (2.26%). Mean age of 1146 members was 20 yrs (18-25 yrs), 60% were illiterate people, 99% were belonging to low socio economic status.

2. Among 1569 Blood Donors, 7 members were HIV + (0.44%).

3. Among 979 members attending to the VCTC, 112 members were HIV+ve (11.4%), 106 were male and 16 were females.

Conclusion: The above study shows that there is prevalence of 11.4% of HIV in VCTC, 2.26% in pregnant women and 0.44% in blood donors. So there is increased need of awareness of AIDS by Health Education in General public as well as in Risk groups.

Gastrointestinal Manifestations of HIV Disease

M Chandra, CG Agarwal, R Mishra, AK Tripathi, VL Nag, A Gupta

King George Medical University, Lucknow.

The HIV disease patient may present with disease of any system of the body with gastrointestinal (GI) manifestations as one of the most frequent complaints. 50-93% of all patients with HIV disease have marked GI symptoms during the course of their illness. As there is paucity of literature from Indian set up, this study will help to detect the subgroup of patients of HIV presenting with GI manifestation, their frequency and causative organisms and their correlation with degree of immunosuppression (CD4 cell counts).

Design and Method: 58 HIV positive of which 39 patients (67.24%) having AIDS (CD4 cell count of < 200/µL) attending HIV clinic or admitted in the wards of Gandhi Memorial and Associated Hospitals, KGMC, Lucknow were included in study after their verbal informed consent. Specimens collected for the study include blood, stool, scraping from oral cavity, endoscopic brushing and biopsy for histopathological examination.

Results: Of the 58 HIV positive most of them were males (67.24%) in the age group 21-30 yrs. (39.65%). Most of them were unskilled workers with history of unprotected sex.

81.03% of total HIV positive and 92.3% AIDS patients with only 17.02% Non-AIDS patients had one or the other GI manifestations. Chronic diarrhoea (85.10% of cases presented with GI complaints) comes out to be the commonest GI manifestation followed by candidiasis (70.21% cases) the 2nd most common GI presentation.

The most common causative pathogen for chronic diarrhea was Entamoeba histolytica found in 27.5% of cases followed by Giardia lamblia cyst in 20.0% of cases. No causative organisms were found in 37.5% of cases on simple stool examination by staining and culture. On examination for inclusion bodies, Cytomegalovirus (CMV) was detected in 17.5% cases of chronic diarrhoea.

Candida albicans was found to be most common (87.16% of cases) causative organism in patients presented with oral lesions.

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Entamoeba histolytica (27.5%) and for oral lesions was Candida albicans. Incidence of GI manifestation increases with progressive cellular immunodeficiency particularly as CD4+ T lymphocyte counts falls below 200/µL.

106. Chronic Meningitis Infected with HIV/AIDS - A Prospective Study

AK Mohapatra, BN Das, SK Mohapatra, P Panda, UC Patra, JO Joseph, A Tripathy, D Jena
SCB Medical College, Cuttack.

Objective : To study the clinical course, outcome and determining factors predicting survival in chronic meningitis patients with HIV/AIDS.

Method : Patients infected with human immunodeficiency virus (HIV) and symptoms suggestive of chronic meningitis were evaluated with detailed history, clinical examination and investigations. Diagnosis of cryptococcal meningitis (CM) was based on positive India ink preparation, isolation of Cryptococcus neoformans from CSF or a positive cryptococcal antigen titre (CRAG) of 1 in 8 or greater from blood or CSF. Highly probable tubercular meningitis (TM) was based on previous Tuberculosis (TB), TB at another site, improving on ATT, with characteristics clinical and CSF findings and with negative investigation finding for CM.

Results : The 12 patients of chronic meningitis included in the study over a period of 2 1/2 years out of 144 HIV infected persons constitutes 34% of neurological involvement or 8% of total case study. 7 cases (58%) belong to TM and the rest 5 (42%) confirmed to be CM. All patients of chronic meningitis had headache > 4 weeks duration with most presenting with fever, vomiting, weight loss. Meningeal signs were subtle and less common (43% in TM and 60% in CM). Seizures and focal deficits were late features (70%). Most patients presented late and were in poor general condition (well being score 2-3) [86% in TM, 60% in CM]. The median CD4 + cell count were low (114 x 10^6/L) and did not differ in both groups. CSF protein and cell counts were elevated in TM as compared from CM and in both groups had CSF glucose. CT scan of brain were abnormal in TM (80%).

Outcome : An adverse outcome (severe neurological deficits of death) was observed in 7/12 (58%) of patients. 58% (7/12) expired during first month of treatment.

Conclusion : Advanced HIV related immunosuppression proved to be the strongest independent risk factor for disease. The Glasgow Coma Score (GCS) value was a good predictor of outcome of disease than CD4+cell count, as value with 14-15 was associated with a good outcome and symptoms consistent with elevated ICP were associated with short term survival.

*109. Abdominal Ultrasonography in HIV Patients

PP Chakraborty, D Bandypadhyay, R Bandypadhyay, S Roy Choudhary, RN Sarkar
Medical College, Kolkata.

Background : HIV/AIDS patients often present with gastrointestinal symptoms and the search for opportunistic infections frequently lead to a large quanta of investigations. We tried to evaluate the potential of USG as a cheap diagnostic option in HIV patients.

Material and Methods : 100 consecutive patients attending the APEX Referral Center for HIV/AIDS at Medical College, Kolkata were advised abnormal USG irrespective of their complaints or severity of immuno-suppression. The complete haemogram, chest X-ray, sputum for AFB, stool for ova, cysts and parasites, LEFT, HBsAg, Urine RE/ME, and other tests were performed as clinically indicated. The recent CD4 counts were recorded in all of them.

Results : 13 patients had symptoms which would normally be evaluated by USG. Their mean CD4 count was 296.4 and 41 patients were on anti-retroviral therapy. 57 patients (57%) had significant findings on USG. Of these, the commonest finding was hepatomegaly 18 (31.6%), followed by retro-peritoneal lymphadenopathy 11 (19.3%), splenomegaly and minimal ascites 7 (12.3%). Rarer diagnoses included hepatic abscess, hepatic and splenic tuberculosis, ileo-caecal tuberculosis, intestinal lymphoma, pancreatic calcification and HIV cholangiopathy.

Conclusion : We conclude that, USG offers a cheap yet sensitive diagnostic alternative in the immuno-compromised host, especially in a resource constrained country like India.

110. Neurological Manifestations of HIV/AIDS

D Bandypadhyay, RN Sarkar, SK Mandal, R Bandypadhyay
Medical College, Kolkata.

Background : Neurological disease is common in patients with HIV and is often undiagnosed because of generalized weakness and non-specific complaints.

Material and Methods : We evaluated 128 consecutive patients attending the Apax Referral Centra for HIV at Medical College, Kolkata and documented symptoms and diseases of the neurological system. Investigations included routine haematology, CD4 counts, imaging including contrast CT of brain, CSF study, serology, NCV and biothesiometry.

Results : Fifty two patients (32.9%) had symptoms suggestive of neural disease. The common presentations and diagnoses of neurological disease are given in Table 1 below. The less common symptoms included fasciculations, ptosis, squint, blindness paraplegia and spastic quadriplegia. Unusual neurological diseases were proximal myopathy, optic neuritis, progressive multifocal leuencephalopathy and HIV myelopathy.

Table 1 : Common neurological presentations and diagnosis

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Dementia</th>
<th>Wasting</th>
<th>Seizures</th>
</tr>
</thead>
<tbody>
<tr>
<td>n(%)</td>
<td>26 (16.6)</td>
<td>21 (13.3)</td>
<td>17 (10.8)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Disease</th>
<th>ADC</th>
<th>TB meningitis</th>
<th>Peripheral neuropathy</th>
</tr>
</thead>
<tbody>
<tr>
<td>n(%)</td>
<td>21 (13.3)</td>
<td>19 (12.1)</td>
<td>13 (8.2)</td>
</tr>
</tbody>
</table>

Table 1 : Common neurological presentations and diagnosis (Contd.)

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Unconsciousness</th>
<th>Psychosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>n(%)</td>
<td>14 (8.9)</td>
<td>11 (6.3)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Disease</th>
<th>Cryptococcal meningitis</th>
<th>Cerebral toxoplasmosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>n(%)</td>
<td>6 (3.7)</td>
<td>4 (2.5)</td>
</tr>
</tbody>
</table>

The mean CD4 count was 224.2 58.7 and the frequency of infective neuro-pathology was positively correlated with the degree of immuno-deficiency and inversely with the adherence to HAART.

Conclusions : We conclude that neurological diseases are frequent in the HIV population and effective and complaint HAART regimens are best suited to avert these diseases.

111. Changing Trends in Anti-Retroviral Therapy (ART) Practices and Side Effect Profile

M Lijo, S Seena, S Girija, R Joseph
St. Johns Medical College Hospital, Bangalore.

Introduction : HIV infection is the new world pandemic. As the acceptability and availability of ART is increasing, The
practising pattern is also undergoing a change. It is appropriate and timely to study the changing trends in antiretroviral therapy and associated side effect profiles.

Aim: To study the changing practices in antiretroviral therapy, side effect profile and also reasons for non-adherence.

Methods: Records of HIV patients who presented to outpatients department from 2000 were reviewed and information regarding the initiation of art, the adverse effects and its onset. The indications for either changing or stopping the drugs and follow up was obtained.

Results: In this ongoing study, we have analysed data of 50 patients, of which majority refused initiation of treatment due to financial reasons. Even among the patients on ART, non-compliance was a main reason for stopping treatment. About 70% of patients who was on ART started treatment in the first month of diagnosis. About half of adverse effect events occurred in 1st month of initiation of treatment. Approximately 50% of adverse effects were haematological, 25% were dermatological and the other causes included poor compliance, GI intolerance and good CD4 count.

115. Study of Tuberculosis in HIV Positive Patients at Tertiary Care Private Hospital

DJ Shinde, FD Dastur
PD Hinduja Hospital, Mahim, Mumbai.

Introduction: Tuberculosis is most common opportunistic infection in HIV positive patients and it has many consequences on each other.

Methods: Forty consecutive patients selected indoor; retrospective study done at private tertiary care centre and detailed history for symptoms and systemic finding were noted and further thorough investigations done to find ratiological, microbiological and histopathological evidence of lesion. CD4 count and HIV viral load were also done.

Results: 92.5% patients presented with constitutional symptoms. 88% patients had CD4 count < 350 suggestive of severe immunocompromised status. 70% patients had extrapulmonary TB. Only 30% patients were sputum AFB positive. Only 30% patients follow up was available.

Conclusion: Extrapulmonary TB is most common site of TB in HIV positive patients. Hence the yield of sputum AFB is low. 30% patients were available for follow up showing poor compliance of patients.

117. Pyrexia of Unknown Origin (PUO) in HIV

BN Vinodh, A Biswas
All India Institute of Medical Sciences, New Delhi - 110029.

Aims: To study the etiological factors and clinical profile of PUO cases in HIV/AIDS cases.

Methods: Twenty five cases of HIV with fever fulfilling the Petersdorf’s modified criteria for PUO associated with HIV were enrolled in the study from the medical wards, from May 2002 to April 2004. Extensive investigations were done to find the cause of PUO.

Results: Out of 25 cases 17 were males and 8 were females. The mean age was 37.17 years (SD ± 10.56 yrs). The mean duration of fever was 16.6 ± 11.22 weeks. Heterosexual mode of transmission were found in 92% (23) cases. Most of the patients (64%) were having CD4 count less than 200 cells/μL (Category 3). Etiology of PUO was established in 92% (23) cases. Pulmonary and extra pulmonary tuberculosis were found in 64% (16) cases. Histoplasmosis (1), toxoplasmosis (2), kala-azar (1) and nocardiosis (1), contributed in 20% (5) cases. Lymphomas accounted for 12% (3) cases. The highest diagnostic yield was obtained from non-invasive imaging modalities of contrast enhanced computerized tomography (CECT) of the chest, abdomen and head (44%). Fine needle aspiration cytology, with or without image guidance yielded the diagnosis in 20% (5) cases. Lymph node biopsy, bone marrow cultures and biopsy yielded the diagnosis in 16% (4) cases. There was 8% mortality in this series.

Conclusion: Pulmonary and extrapulmonary tuberculosis are the most common infections causing PUO. The CECT scans yield the diagnosis in 44% cases.

139. Prevalence and Clinical Course of Hepatitis C Infection in HIV Positive Persons and It’s Correlation with CD4 Cell Counts

AR Pazare, A Mathew, R Nikhalaje
GSMC, Mumbai.

Aims and Objectives: Study was undertaken to see the prevalence and clinical course of hepatitis C infection in different stages of HIV infection.

Material and Methods: Three hundred patients living with HIV and AIDS (PLWHA) were studied at our institute. Alcoholics and patients on anti-Koch’s therapy were excluded from study. Clinical course of HCV (hepatitis C virus) in PLWHA was compared with age and sex matched HIV negative controls. CD4 count and liver function test were done as per standard protocol.

Observation: Prevalence of HCV positivity was 9% (27 patients) in PLWHA with 67% of them were in age group of 11-30 years. 12 patients had heterosexual and 15 had blood transfusions related transmission. All these patients were asymptomatic for AIDS disease. 12 patients with HCV had CD4 in between 200-500 and 15 patients had CD4 below 200. SGPT was > 3 times in 12 patients and > 3 times in 15 patients in
PLWHA. While SGPT in consecutive 27 HCV infected HIV negative controls was < 3 times in 22 and > 3 times in 5 patients. Odds ratio of severe hepatitis (SGPT > 3 times) in HCV infection in PLWHA vs. HIV negative control is 6.5:1. CD4 count was > 200 in 4 patients and < 200 in 23 patients who had SGOT > 3 times in PLWHA. It suggests that low CD4 counts is related to severity of hepatic disease. PLWHA and HCV infections have chronic hepatitis in 78%, and cirrhosis (6%) while in HIV negative controls with HCV infection has chronic hepatitis in 55.50% and none has cirrhosis.

Conclusion : Progression of HIV disease worsens HCV infections and it is proportionate to stage of HIV disease. Liver injury is by direct cytopathic effect.

Material and Methods : Three hundred patients living with HIV and AIDS (PLWHA) were studied at our institute. Alcoholics and patients on anti-Koch’s therapy was excluded from study. Clinical course of HIV negative

Material Methods : Prevalence of HBV positivity was 6% (18 patients) in PLWHA with 89% of them were in age group 21-40 years. 16 patients had heterosexual and 2 had blood transfusions related transmission. All these patients were asymptomatic for AIDS disease. Six patients with HBV had CD4 in between 200-500 and 12 patients had CD4 below 200. SGPT was < 3 times in 15 patient and > 3 times in 3 patients with HBV infection in PLWHA. While SGPT in consecutive 18 HBV infected HIV negative controls was < 3 times in 10 and > 3 times in 8 patients. Odds ratio of severe hepatitis (SGPT > 3 times) in HBV infection in PLWHA Vs. HIV negative control is 1:4. CD4 count was > 200 in all 3 patients who had SGPT > 3 times. HBeAg was positive in 13 patients in PLWHA and 6 in controls. HBeAg was negative in 5 patients in PLWHA and 12 in controls. Odds ratio of HbsAg positivity in PLWHA Vs. HIV negative control is 2:1.

Conclusion : 1. HBV viral replication is more in PLWHA (evidence by HBeAg) 2. Liver injury by HBV is more common in HIV negative controls as compare to PLWHA 3. Liver injury by HBV is more common in PLWHA with high CD4 counts (> 200). Which suggests liver injury is immune mediated.

*Adjudged Best Papers and got an award of Rs. 1000/- each from Chairman Scientific Committee, Diamond APICON 2005.