

“A PROSPECTIVE STUDY OF CLINICAL PROFILE OF EXTRAPULMONARY TB IN PEOPLE LIVING WITH HUMAN IMMUNODEFICIENCY VIRUS (HIV)”

General Medicine

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ABSTRACT

Introduction: A clinical study conducted to study the site of EPTB in HIV patients and its correlation with the viral load. Many studies have been done in past for HIV and pulmonary TB, but study related to EPTB and HIV is lacking in Indian scenario.

Material And Methodes: The present study will include all HIV/AIDS registered patients attending ART centre OPD and indoor patients in Medicine department of JAH Group of Hospitals, confirmed to have EPTB.

Study Place: J.A GROUP OF HOSPITALS & ART CENTER

Duration Of Study: November 2019 to June 2021.

Study Design: Prospective study.

Sample Design: Purposive sampling.

Sample Size: 80 cases of HIV/AIDS patient confirmed to have Extrapulmonary Tb.

RESULT

AGE GROUP

Maximum Patient Were in Age Group 26-35 (42.5%)

Maximum number of cases were of age group 26-35 because of more awareness and reporting to health care system by this age group

SITE OF EPTB

Maximum No of Cases Were of Abdominal Tb Representing 35% of All The Cases.

VIRAL LOAD

According to our study patient with viral load > 1000 are 51 (63.7%) while patient with viral load < 1000 are 29 (36.2%) P value = 0.02 (statistically significant)

EPTB SITE AND VIRAL LOAD

- For cases with viral load < 1000 the involvement of site is as follows, p value = 0.02 (statistically significant) Abdominal Tb > pleural Tb > lymph node Tb > nervous system Tb > bone and joint Tb > genitourinary Tb
- For cases with viral load > 1000 the involvement of site is as follows, p value = 0.02 (statistically significant) Abdominal Tb > lymph node Tb > pleural Tb > nervous system Tb > genitourinary Tb > bone and joint Tb

CONCLUSION

- Males are more commonly involved in EPTB because they have higher chances for HIV co-infection.
- Most common age group affected is 26-25 yrs and 36-45 yrs.
- Most common site of EPTB is abdominal Tb.
- For viral load > 1000- abdominal Tb is most common but chances of genitourinary, bone and joint and nervous system is also increased.
- For viral load < 1000 most common site involved is abdomen and lymph nodes.

KEYWORDS

EPTB (EXTRA PULMONARY TB), HIV (HUMAN IMMUNODEFICIENCY VIRUS), VIRAL LOAD

INTRODUCTION

A clinical study conducted to study the site of EPTB in HIV patients and its correlation with the viral load.

Many studies have been done in past for HIV and pulmonary TB, but study related to EPTB and HIV is lacking in Indian scenario.

This study took in consideration the site of EPTB i.e pleural, abdominal, CNS, lymph node, bone etc. and the sequence of prevalence. Relationship between site of EPTB and viral load is also studied which will help in treatment guidance in HIV.

The above study is showing the relationship between different sites of eptb and its correlation to hiv and relationship of viral load and different sites of eptb.

This will be helpful in management of hiv patients as well as prevention and detection of eptb in hiv patients

MATERIAL AND METHODE

The present study will include all HIV/AIDS registered patients attending ART centre OPD and indoor patients in Medicine department of JAH Group of Hospitals, confirmed to have EPTB.

Study Place: J.A GROUP OF HOSPITALS & ART CENTER

Duration Of Study: November 2019 to June 2021.

Study Design: Prospective study.

Sample Design: Purposive sampling.

Sample Size: 80 cases of HIV/AIDS patient confirmed to have Extrapulmonary Tb.

Inclusion Criteria:

- (1) Age more than 18 years.
- (2) Cases of HIV diagnosed to have Extrapulmonary Tb
- (3) Subject giving consent for study

Exclusion Criteria:

1. Age below 18 years.
2. Cases of HIV suffering from Pulmonary Tb.
3. Subjects who do not provide consent for the study.
4. Patient with other immunocompromised diseases { hepatitis B, C, D, }
5. Other cardiovascular disease patients
6. Malignancies
7. Pregnant lady
8. Connective tissue disorders
9. Chronic liver disease and renal failure cases

Statistical Analysis shall be done using SPSS 2.0 software and graphs shall be generated by Microsoft Excel and Word. A p value of less than

0.05 shall be considered significant.

Statistical Method

Paired t test
Chisquare test

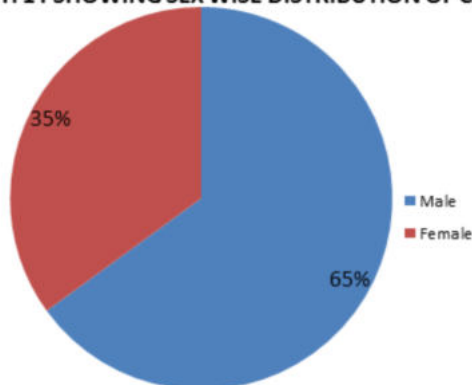
RESULT

Table 1: Showing Sex Wise Distribution Of Cases

| SEX | NUMBER | PERCENTAGE |
|--------|--------|------------|
| Male | 52 | 65% |
| Female | 28 | 35% |
| Total | 80 | 100% |

Paired t test- p value = 0.09

GRAPH 1 : SHOWING SEX WISE DISTRIBUTION OF CASES



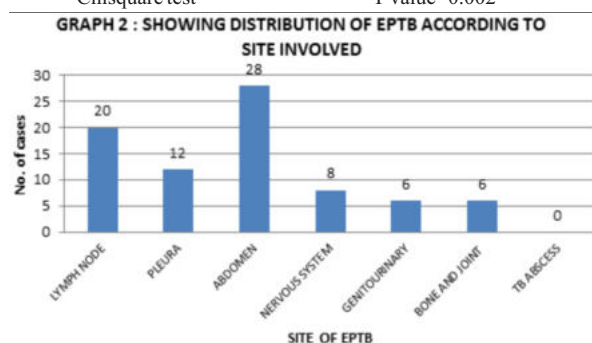
From the above graph it is clear that most of the cases were males (n=52) representing 65% of all the cases, while the female cases were 28 representing 35% of all the cases, p value = 0.09 (statistically significant).

Table 2: Showing Distribution Of EPTB According To Site Involved

| SITE OF EPTB | NO. OF CASES | NO % |
|----------------|--------------|------|
| LYMPH NODE | 20 | 25% |
| PLEURA | 12 | 15% |
| ABDOMEN | 28 | 35% |
| NERVOUS SYSTEM | 8 | 10% |
| GENITOURINARY | 6 | 7.5% |
| BONE AND JOINT | 6 | 7.5% |
| TB ABSCESS | 0 | 0% |

Chisquare test

P value=0.002



From above chart it is clear that the Maximum No of Cases Were of Abdominal Tb Representing 35% of All The Cases And The Sequence is Abdominal Tb (35%) > Lymph Node Tb (25%) > Pleura (15%) > Nervous System (10%) > Genitourinary (7.5%) > Bone Tb (7.5%) P Value = 0.002 (Statistically Significant)

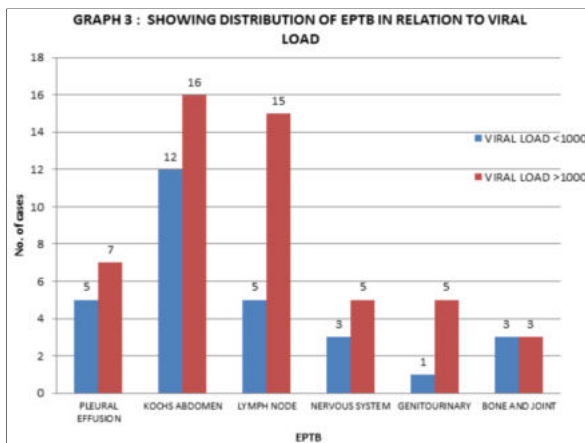
Table 3: Showing Distribution Of EPTB In Relation To Viral Load

| EPTB | VIRAL LOAD <1000 | VIRAL LOAD >1000 |
|------------------|------------------|------------------|
| PLEURAL EFFUSION | 5 | 7 |
| KOCHS ABDOMEN | 12 | 16 |
| LYMPH NODE | 5 | 15 |
| NERVOUS SYSTEM | 3 | 5 |
| GENITOURINARY | 1 | 5 |

| | | |
|----------------|----|----|
| BONE AND JOINT | 3 | 3 |
| TOTAL | 29 | 51 |

Paired T test

P value=0.020



Above chart shows that For cases with viral load < 1000 the involvement of site is as follows, p value= 0.02 (statistically significant)

Abdominal Tb > pleural Tb ≥ lymph node Tb > nervous system Tb ≥ bone and joint Tb > genitourinary Tb

For cases with viral load > 1000 the involvement of site is as follows, Abdominal Tb > lymph node Tb ≥ pleural effusion Tb > nervous system Tb = genitourinary Tb ≥ bone and joint Tb p value= 0.02 (statistically significant).

RESULT

AGE GROUP

Maximum Patient Were in Age Group 26-35 (42.5%) .

Maximum number of cases were of age group 26-35 because of more awareness and reporting to health care system by this age group

Site Of EPTB

In Our Study The Maximum No of Cases Were of Abdominal Tb Representing 35% of All The Cases And The Sequence is Abdominal Tb (35%) > Lymph Node Tb (25%) > Pleura (15%) > Nervous System (10%) > Genitourinary (7.5%) > Bone Tb (7.5%) P Value = 0.002 (Statistically Significant)

VIRAL LOAD

According to our study patient with viral load > 1000 are 51(63.7%) while patient with viral load <1000 are 29 (36.2%)

P value= 0.02 (statistically significant)

EPTB Site And VIRAL LOAD

For cases with viral load < 1000 the involvement of site is as follows, p value= 0.02 (statistically significant) Abdominal Tb > pleural Tb ≥ lymph node Tb > nervous system Tb ≥ bone and joint Tb > genitourinary Tb.

For cases with viral load > 1000 the involvement of site is as follows, p value= 0.02 (statistically significant) Abdominal Tb > lymph node Tb > pleural Tb > nervous system Tb ≥ genitourinary Tb > bone and joint Tb

Hence in our study patients with viral > 1000 apart from involvement of abdomen, pleura, lymph node, the involvement of nervous system, genitourinary system and bone and joint is also increased.

CONCLUSION

- Males are more commonly involved in EPTB because they have higher chances for HIV co-infection.
- Most common age group affected is 26-25 yrs and 36-45yrs.
- Most common site of EPTB is abdominal Tb.
- The chances of extra pulmonary Tb increases as the viral load increases.
- Males are involved more than females in both the category of viral load <1000 and > 1000.

- For viral load > 1000- abdominal Tb is most common but chances of genitourinary, bone and joint and nervous system is also increased.
- For viral load < 1000 most common site involved is abdomen and lymph nodes.

REFERENCES

- 1) HIV-TB co-infection with clinical presentation, diagnosis, treatment, outcome and its relation to CD4 count, a cross-sectional study in a tertiary care hospital in coastal Karnataka. Tiewsoh JBA, Antony B, Boloor R.
- 2) Prevalence of extrapulmonary Tb among people living with HIV/AIDS in sub-Saharan Africa: a systemic review and meta-analysis. Mohammed H, Assefa N, Mengistie B.
- 3) Aravind et al. Clinical Profile of Patients With Extrapulmonary Tb At A Tertiary Care Hospital, New Delhi. International Journal of Medical Science and Clinical Inventions 4(1): 2624-2631, 2017. doi:10.18535/ijmsci/v4i1.22.
- 4) Prakasha SR, Suresh G, D'sa IP, Shetty SS, Kumar SG. Mapping the Pattern and Trends of Extrapulmonary Tb. J Glob Infect Dis. 2013 Apr;5(2):54-9.