



SYNDEMIC OF TUBERCULOSIS AND COVID-19 IN EAST GODAVARI DISTRICT OF ANDHRA PRADESH - A RETROSPECTIVE STUDY.

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ABSTRACT **Background And Aims:** Tuberculosis still continues to be endemic in various regions of world especially in India. Tuberculosis is still the leading cause of death due to a single infectious disease globally. Covid-19 has emerged as a significant respiratory disease requiring attention and has contributed to significant mortality & morbidity in the form of sudden thromboembolic events like coronary artery disease, cerebrovascular accidents & higher risk of infections especially tuberculosis. The association and effect of COVID-19 vis-a-vis tuberculosis on each other is not clearly understood. Here we analysed the data on both covid-19 & tuberculosis in East Godavari district over a period of 3 years from 2019-2021. **Materials & Methods:** We collected epidemiological secondary data regarding total burden of covid-19 & tuberculosis (both drug sensitive tuberculosis & drug resistant tuberculosis) and total number of CBNAAT tests done from 2019-2021 to assess whether there was any impact of covid on tuberculosis in East Godavari district. **Results:** In our analysis we found that there is a significant increase in the total number of multi-drug resistant tuberculosis cases during the years of 2020 to 2021 compared to 2019. **Conclusion:** Covid-19 had a significant impact on tuberculosis, which might have contributed to an increase in total number of multi-drug resistant tuberculosis cases in East Godavari district. Lockdown, public health guidelines and diversion of resources, loss of focus with increased attention of COVID-19 care, constraints due to over utilisation of laboratories meant for tuberculosis work, issues related to availability of tuberculosis care workers resulted in tough challenges in the management of tuberculosis. All these are to be re-considered in order to prevent further grave consequences or the country may have to revise its end tuberculosis target of 2025.

KEYWORDS : Covid-19, drug resistance, tuberculosis , endemic, East Godavari District.

INTRODUCTION:

Tuberculosis still continues to be endemic in various regions of world especially in India and is still the leading cause of death due to a single infectious disease globally. Every year nearly 10 million people fall ill with tuberculosis worldwide. In India in 2019, 24.1 lakh TB cases were reported. The incidence of tuberculosis has been slowly declining over the past decade.

This positive trend has been abruptly reversed during covid-19 pandemic, which has emerged as a significant respiratory disease requiring attention and has contributed to significant mortality & morbidity in the form of sudden thromboembolic events & higher risk of infections especially tuberculosis.

Compared with 2019, tuberculosis case detection in 2020 was reduced by 18% globally and major reductions in notified cases have been seen in the Philippines (37%), Indonesia (31%), South Africa (26%) and India (25%). 2021 witnessed a 19% increase from the previous year in TB patients notification—the total number of incident TB patients (new and relapse) notified during 2021 were 19,33,381 as opposed to that of 16,28,161 in 2020. But the association and effect of COVID-19 vis-a-vis tuberculosis on each other is not clearly understood.

AIMS AND OBJECTIVES:

To assess any impact of covid-19 on incidence of tuberculosis.

RESULTS:

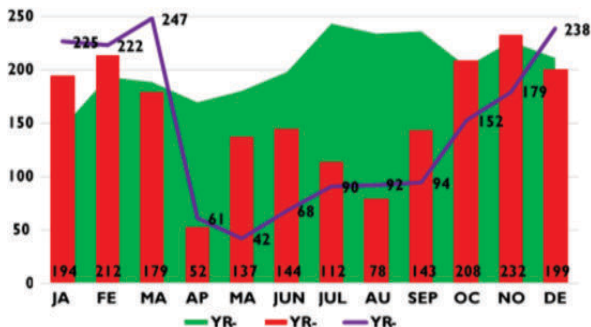


Fig No 1: Distribution of CBNAAT tests done in month wise in respective years (2019-2021).

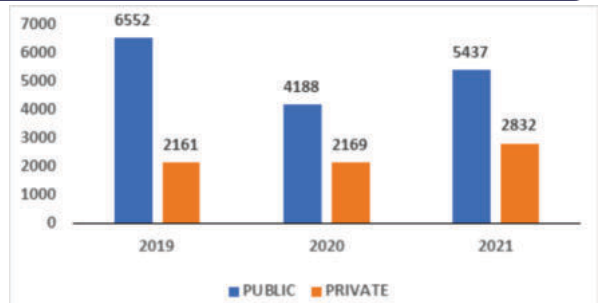


Fig No 2: Distribution of drug-sensitive TB patients

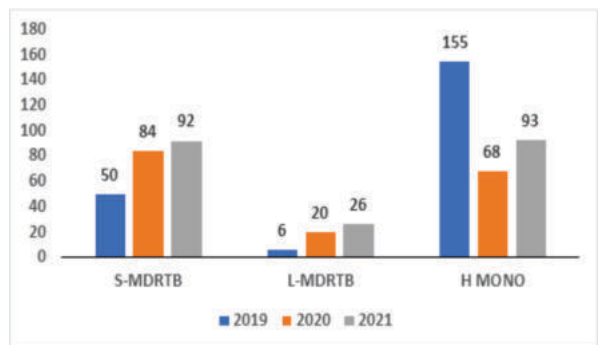


Fig No 3: Distribution of Drug-resistant TB patients

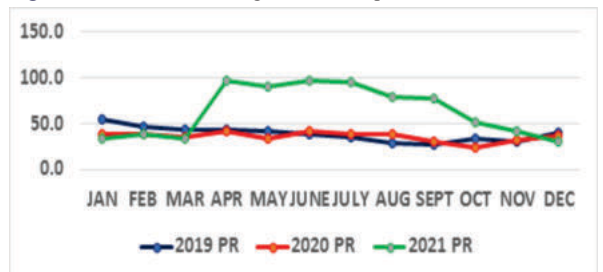


Fig No 4: Positivity rates of CBNAAT from 2019 to 2021

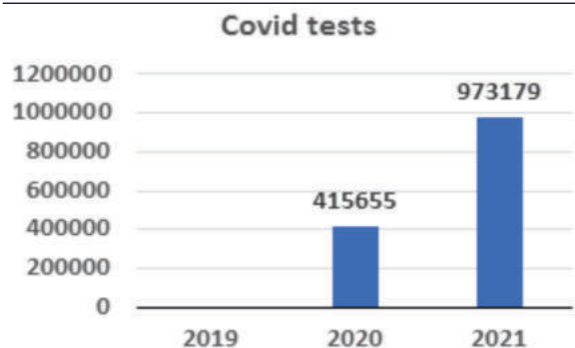


Fig no 5: Distribution of number of COVID

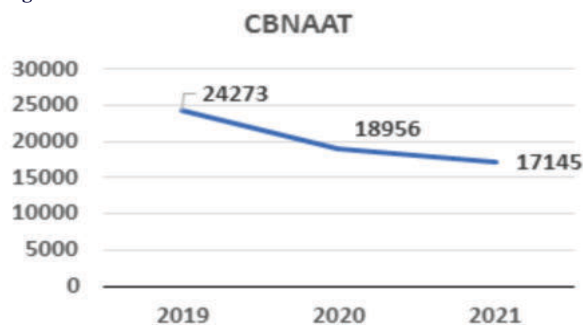


Fig no 6: Distribution of number of CBNAAT tests over years. tests over years.

MATERIALS & METHODS:

We collected epidemiological secondary data regarding total burden of covid-19 & tuberculosis (both drug sensitive tuberculosis & drug resistant tuberculosis) and total number of CBNAAT tests done from 2019-2021 to assess whether there was any impact of covid on tuberculosis in East Godavari district.

DISCUSSION:

Compared to 2019, the CBNAAT positivity rate was more in 2021 despite drastic reduction in tuberculosis case detection in 2020 and 2021. A study showed that individuals with COVID-19 had a reduced frequency of tuberculosis-specific CD4 T cells in the peripheral blood compartment, supporting the hypothesis that COVID-19 might increase susceptibility to and progression to active tuberculosis.

Data presented elsewhere in WHO report suggest that other impacts associated with the COVID-19 pandemic include a 15% decline in people enrolled on treatment for MDR/RR-TB. Total no. of drug sensitive TB positivity was less but MDR TB cases were on surge in 2020-2021 compared to 2019.

This acute reduction in case detection supports reduced health care access which further lead to delayed diagnosis, management & follow up ending into increased drug resistant TB cases and increased mortality.

CONCLUSION:

Covid-19 had a significant impact on tuberculosis, which might have contributed to an increase in total number of multidrug resistant tuberculosis cases in East Godavari district.

Lockdown, public health guidelines and diversion of resources, loss of focus with increased attention of COVID-19 care, constraints due to overutilization of laboratories meant for tuberculosis work, issues related to availability of tuberculosis care workers resulted in tough challenges in the management of tuberculosis.

All these are to be re-considered in order to prevent further grave consequences or the country may have to revise its end tuberculosis target of 2025.

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