Prevalence and Treatment Outcome of Tuberculosis before and during COVID-19 Pandemic in Rivers State, Nigeria

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Abstract

B*ackground*: *Tuberculosis (TB) remains an important public health problem of the 21st century that has been worsened by Covid-19 across the globe. As measures to reduce the spread COVID-19, Governments around the world including in Rivers State implemented several strategies including social distancing, hard or partial lockdowns leading to severe restrictions in movements and gatherings. With such severe restrictions in movements and gatherings, there was likely some effects on TB healthcare services, especially access to treatment. This study therefore presents evidence on the impact of COVID-19 on TB prevalence and treatment outcome in Rivers State, Nigeria.*

Objective: *This study aimed to determine the Prevalence and Treatment Outcome of Tuberculosis in Rivers State, Nigeria before and during Covid-19 pandemic.*

Method: *A descriptive observational study design with secondary data obtained from Rivers State Ministry of Health was employed. A standard data capturing tool was used to obtain the number of cases and various treatment outcome over a period of two years (2019 – 2020). A paired sample t-test was done to test for statistical difference in the number of cases pre and post Covid-19 pandemic using SPSS version 25.*

Result: *A total of 8,299 cases of Tuberculosis in an estimated population of 7.3million was recorded during the study period. A prevalence of 117.8 per 100,000 population was noted for the two years, 52.9 per 100,000 in 2019 and 64.9 per 100,000 population in 2020. Cure rates for both year is 51.4% with 52.3% in 2019 and 50.5% in 2020. 19 (0.23%) of cases experienced treatment failure due to drug resistance, 8(0.21%) in 2019 and 11(0.24%) in 2020. 220 (2.65%) were loss to follow-up with 115(1.39%) in 2019 and 105(1.27%) in 2020. Relapse occurred in 65(0.78%), 42(0.51%) in 2019 and 23(0.27%) in 2020. 355 (4.3%) deaths were recorded during the study period, 180 (4.8%) deaths in 2019 while 175(3.8%) deaths in 2020. At 95% confidence interval, P = 0.024, there was a statistically significant relationship in the number of Tuberculosis cases before and during Covid-19.*

Table 1: Prevalence of TB before and during COVID-19

Year	2019-2020	2019	2020
Prevalence/100,000 Population	117.8	52.9	64.9

Table 2: Treatment outcome of TB before and during COVID-19

Year	2019-2020	2019	2020
Cure Rate (%)	51.4	52.3	50.5
Failure Rate (%)	0.23	0.21	0.24
Relapse (%)	0.78	0.51	0.27
Loss to Follow -up (%)	2.65	1.39	1.27
Case fatality Rate (%)	4.3	4.8	3.8

Discussion: From the result, the prevalence of tuberculosis and treatment failure were higher during Covid-19 pandemic in Rivers State in 2020. This finding is similar to reports by Hongal et al (2020) who opined that TB cases will increase by 6.3 million in the next 5years if active measures are not taken to control Covid-19 which has made people to live in crowded condition and also disrupted the provision of TB preventive services.

Conclusion: The prevalence of tuberculosis and treatment failure were higher during COVID-19 pandemic in Rivers State in 2020. In this light, there is need not to only practice prevention and control of TB but also adequate measures to strengthen the prevention, control, and management of TB during any disease pandemic.

Key Words: Covid-19, Tuberculosis, Prevalence, Treatment Outcome

Reference

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