Subcultured strains of MTB on LJ slants

Preparing LJ for DST

Results: The phytochemical analysis collectively revealed the presence of tannins, saponins, flavonoids, anto- and betacyanins, terpenoids, phenols and steroids. The M. tuberculosis strains exhibited resistance to all the four extracts at tested concentrations as there was substantial growth with typical creamy non-pigmented morphology on all the LJ media prepared with extracts though with varied rate compared to the control. However, there was no growth on the media with standard drug and the media with distilled water as expected.

Conclusion: It can therefore be inferred from the result that aqueous and ethanolic extracts from the fruit skin and leaf of A. muricata at tested concentrations have no antimycobacterial activity.

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Type: Poster Presentation

Prevalence of culture-positive mycobacteria among suspected cases of pulmonary tuberculosis in Ahmadu Bello University Teaching Hospital, Zaria, Northern, Nigeria

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Background: Tuberculosis (TB) is a major cause of death and disability globally. Microscopy of Acid Fast Bacilli (AFB) is the routine method of diagnosis of tuberculosis in many developing countries and although faster and cheaper, requires a high bacterial load to obtain a positive result. The advent of Gen-Xpert has revolutionized diagnosis of tuberculosis though Mycobacteria other than tuberculosis (MOTT) are not often captured by this technology. The Gene-Xpert cannot also be used for follow up. Therefore culture still remains the gold standard. This research set out to determine the prevalence of culture positive Mycobacteria among suspected cases of pulmonary tuberculosis in Ahmadu Bello University Teaching Hospital (ABUTH), Zaria, Kaduna State, Nigeria.

Methods & Materials: Patients aged ten years and above presenting with clinical features suggestive of pulmonary tuberculosis at ABUTH were recruited for this descriptive study. Three sputum samples were collected from each patient for Ziehl Neelsen staining and one early morning sputum from each patient was inoculated on Lowenstein Jensen media. Isolated Mycobacteria were identified as MOTT or Mycobacterium tuberculosis complex using immunochromatographic method. HIV status was also determined. A structured questionnaire was used to obtain demographic details of the patients. Descriptive statistics are presented.

Results: Of the total Mycobacteria isolated, 17 (65.4%) were Mycobacterium tuberculosis complex (MTBC) while 9 (34.6%) were Mycobacteria other than tuberculosis (MOTT). Out of 270 suspected pulmonary tuberculosis patients enrolled, 127 (40%) were male and 60 (22.2%) were HIV positive. AFB microscopy was positive for 19 (7%) smears while 26 (9.6%) were culture-positive. Fifteen (11.8%) males and 3 (5%) of the HIV patients were also culture-positive.

Conclusion: The need for culture in the diagnosis of pulmonary tuberculosis is important as there was obvious difference in prevalence of Mycobacteria detected by culture versus microscopy in this study, though not significant. Occurrence of MOTT among suspected TB cases further corroborates the urgent need for culture in our facilities.

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Vitamin D deficiency, CNS inflammation, and clinical outcome in tubercular meningitis

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Background: Tubercular (TB) meningitis results in high mortality (about 40%) and neurological sequelae despite early treatment with anti-TB drugs and dexamethasone. Hence, adjunctive treatments are needed to improve the outcome. Vitamin D deficiency is associated with poor treatment outcomes in pulmonary TB. But, its effect in patients with TB meningitis is unknown. We tested the hypothesis that low serum 25-OH vitamin D levels would be associated with poor clinical outcome in patients with TB meningitis.

Methods & Materials: We prospectively studied 40 consecutive HIV-negative patients aged ≥12 years with TB meningitis (based on the international consensus criteria) up to treatment completion,