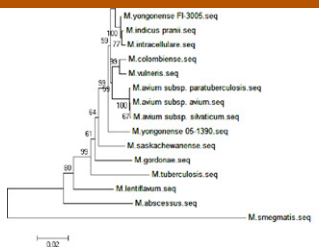

Conclusion: Phylogenetic analysis indicate the isolate as a distinct new member within MAIC with a unique clinical manifestation in the present dog's case by way of being less lethal as compared to other reported cases.

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Patients satisfaction with TB DOTS services in PHC facilities in Katsina State, Nigeria

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Background: In Nigeria, Katsina, tuberculosis (TB) remains a major issue despite the availability of a TB control program and free anti-TB drugs. Assessment of client perception in Tuberculosis programs could contribute to understanding the gaps in health care delivery service and also the specific needs of the patients. This is very important in identifying the barriers to and the facilitators of successful TB control programs. This study demonstrates the perception of patients utilizing DOTS services in primary health care facilities in Katsina state and how it relates to their level of satisfaction.

Methods & Materials: This study was conducted on patients with pulmonary tuberculosis receiving DOTS services in PHC centers in Katsina state. A cross sectional descriptive study was carried out in January 2014 with a sample of 225 patients obtained by a multi-stage sampling process. A structured, interviewer-administered questionnaire was used to assess satisfaction of patients and data was analyzed using SPSS Version 21.

Results: Most of the respondents were males (70.2%), married (66.7%) and Muslim (92.4%) with no formal education (49.3%) and farming constituting their major occupation. Most of the patients were satisfied with different components of the TB control services. Majority of respondents (93%) were satisfied with TB DOTS services. There was statistically significant association between education and satisfaction with TB services ($p = 0.006$) and also between satisfaction and religion ($p = < 0.0001$). No statistically significant association was found between respondent's gender ,occupation and their satisfaction with TB services.

Conclusion: Phylogenetic analysis indicate the isolate as a distinct new member within MAIC with a unique clinical manifestation in the present dog's case by way of being less lethal as compared to other reported cases.

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Knowledge of health care workers on TB and DOTS strategy in PHC facilities in Katsina State, Nigeria

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Background: Tuberculosis kills millions of people around the world, and also it threatens the livelihoods of families and communities worldwide with developing countries the hardest hit where 95% of all new TB cases and 99% of deaths occur. A critical strategy for successful TB control is the prompt, appropriate and complete treatment of all patients diagnosed with active disease. This cannot be achieved if health care workers' knowledge of the disease is deficient or national treatment protocols are not followed. This study explored the knowledge of health care workers on TB and DOTS strategy in Primary Health Care centers in Kastina state.

Methods & Materials: A cross sectional descriptive design was employed with a sample of 305 respondents using the multistage sampling method. A structured, self-administered questionnaire with questions mostly adapted from National TB and leprosy control program workers manual was used to explore knowledge of health workers and the data was analyzed using SPSS Version 19. Ethical approval was obtained from the Ethical review board of the Kastina state Ministry of Health while written informed consent was obtained from all respondents.

Results: Less than half (43%) of the respondents had adequate knowledge on TB and DOTS services. Only 13% and 15% of the respondents knew the correct meaning of DOTS and DOT respectively. Only 24.3% of the health care workers had received training on TB control. There was statistically significant association between designation of health workers and knowledge of TB and DOTS Strategy ($p=<0.001$). There was no statistically significant association between knowledge and training, number of years spent in health facility.

Conclusion: The study reflects that knowledge of TB and DOTS strategy was poor. The state control program in collaboration with

TB control supporting partners in the country, should improve training of all the health workers on TB control services.

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Latent tuberculosis infection among close contacts of non-residential pulmonary tuberculosis patients in Shanghai, China

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Background: Under the fast urbanization, Shanghai is hosting more and more domestic rural-to-urban migrants who do not have a certified local residence. Tuberculosis is more prevalent in rural population in China. In 2014, non-residential population has accounted for 42.9% of new pulmonary tuberculosis (PTB) patients in Shanghai. Close contacts of non-residential patients are at high risk of latent tuberculosis infection (LTBI). This study aimed to understand the prevalence of LTBI in close contacts of non-residential PTB patients, and to identify the risk factors associated with LTBI in Shanghai.

Methods & Materials: A cross-sectional study was conducted among close contacts of non-residential PTB patients diagnosed in 2013-2014 in 4 districts of Shanghai. T-SPOT.*TB* was applied to detect the LTBI among contacts, together with a questionnaire for collecting information on demographics, socio-economic status, history of Bacille Calmette-Gueŕin (BCG) vaccination, symptoms of TB and details of contacting. The status of LTBI was defined as T-SPOT.*TB* positive plus no TB symptoms and a normal lung image by chest X-ray.

Results: In this study, 460 close contacts were self-reported by 226 registered PTB patients. Of these contacts, 43.0% were male and 58.0% were BCG vaccinated. Overall, 83 contacts had positive T-SPOT.*TB* results without TB symptoms, which presented an 18.0% (95%CI: 14.5%~21.6%) prevalence of LTBI. The prevalence of LTBI increased with age ($X^2_{\text{liner trend}}$=3.910, p=0.048), and exposure duration to PTB patients ($X^2_{\text{liner trend}}$=6.401, p=0.011). Stratified analysis by age (0-19, 20-39, 40-59, and ≥60 years) indicated that the association between LTBI prevalence and exposure duration was statistically significant at the age of 20-39 years ($X^2_{\text{liner trend}}$=4.947, p=0.026). Multivariate analysis showed that household contact significantly increased the risk of LTBI (aOR=9.030, 95%CI: 2.568-31.756); and contacts of PTB patients having cough (aOR=2.541, 95%CI: 1.258-5.133) and cavities in lung (aOR=1.698, 95%CI: 1.008-2.860) were more likely to be LTBI than those otherwise.

Conclusion: Close contacts of non-residential PTB patients had a relatively high LTBI prevalence. Intervention for infection control among PTB close contacts should be concerned in the policy development for ending TB in 2035 in Shanghai.

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The serum Th1 and Th2 cytokines levels in active tuberculosis patients before and after 2 month anti-TB treatment

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Background: Pulmonary tuberculosis (TB) remains a major public health burden in China. It is generally thought that while B cell- and antibody-mediated immunity plays an important role in host defense against extracellular pathogens. Given the role of cell-mediated immunity (CMI) in providing protection against TB, this study aims to investigate the levels, impact factors and variations of T helper 1 (Th1) (IFN-γ, interleukin (IL)-2), and Th2 (IL-4, IL-10) cytokines in pulmonary TB patients before and the end of 2 month anti-TB treatment.

Methods & Materials: The active TB case-cohort was established in five distrcits designated TB diagnosis hospitals in Shanghai. All registered active TB patients diagnozed during 2013 to 2014 were investigated using structure questionnaire covering geographic, demographic, social-economic information and disease profile. Enzyme-linked immunosorbent assay(ELISA) was used to assess the level of serum IFN-γ, IL-2, IL-4, and IL-10 before and 2 month later of the treatment.

Results: Overall 309 TB patients were enrolled, among which 72.49% (224) were male, and 78.64% (243) were sputum smear positive (SS+). The average age was 51.43, varied from 17 to 91. The sputum smear negative conversion rate at the end of 2 month anti-TB treatment was 75.72%. The mean of serum IFN-γ, IL-2, IL-4, IL-10 levels of participants before anti-TB treatment were 43.30, 14.24, 43.21, and 29.33 pg/ml, respectively. The IFN-γ, IL-2, and IL-10 were significantly decreased after 2 month anti-TB treatment (IFN-γ:36.41 pg/ml, p=0.003; IL-2:39.14 pg/ml, p<0.001; IL-10:12.31 pg/ml, p<0.001). The cytokines rate of IFN-γ/IL4 before and after 2 month anti-TB treatment was 3.56 and 2.16, respectively. There was no significant difference of cytokines rate between before and after 2 month treatment.

Conclusion: Th1and Th2 cytokines may be involved in the development of pulmonary tuberculosis and impact on the prognosis of disease. Tracking the serum levels of relative cytokines may be helpful to explore the course of pulmonary tuberculosis and evaluate the efficacy of the treatment.

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