Hydatid Cyst Case Report

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A 47-year-old female was admitted to emergency room due to dyspnea, hypotension and stupor. Medical history of sulfonamide allergy, Hemolympangioma diagnosed and treated with thoracic laminectomy. She was healthy until 15 days before admission. She began with dyspnea, triggered by postural changes, increasingly severe. Three days later, nausea, fever and night sweats were added to the initial symptoms; five days prior to admission fatigue, weakness, and pulsatile headache began. Finally, she presented discomfort, acute loss of consciousness and was admitted to our hospital. At arrival, her vitals were BP 90/50 mmHg, HR 124 bpm, RR 32 bpm, SPO2 80% ambient air. She presented difficulty breathing, audible inspiratory stridor and stupor. Endotracheal intubation was performed. Bilateral expiratory wheezing was found, rest of physical examination was unremarkable. Chest radiography showed no infiltrates, and physical examination was unremarkable. Lumbar puncture was performed and reported as normal; Troponin-I and D-dimer were reported high, pulmonary Angio-CT was performed, in search of a probable pulmonary embolism, reported normal. Ventilator support was discontinued after evidence of ventilatory recovery. Next morning she had urticarial episode, resolved with loratadine. On Angio-CT we observe a hint of a hepatic lesion. Abdominal ultrasound found a cystic lesion 7.7 x 7.3 x 5.5 cm, visible wall with anechoic content; hydatid cyst CE3a, according to WHD classification is diagnosed. Adenazolone 400 mg BID, was administered, ELISA IgG vs Echinococcus granulosus reported positive. She was discharged and staffed in outpatient follow-up during 3 months.

QuantiFERON-TB Gold In-Tube in the Prevalence of Latent Tuberculosis Infection among Healthy Saudi Population

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Background: Mycobacterium tuberculosis infection is the result of large number of morbidity and mortality worldwide. Saudi Arabia has an incidence rate ranged between 8.6 and 12.2/100,000. QuantiFERON-TB Gold in-tube is approved to detect latent tuberculosis infection and TB disease. We conduct this study to estimate the prevalence of latent Tuberculosis in healthy population in Saudi Arabia and detect the sensitivity, specificity and positive predictive value of QuantiFERON-GIT-TB Gold in-tube.

Methods: A cross-sectional study of blood sampling for QuantiFERON-TB Gold in-tube testing took from healthy blood donor were recruited from blood bank at King Saud University (KSU) and volunteers from Riyadh region, with further contact and follow up for positive results for two years for activation of latent tuberculosis. The study supported by King Saud University and King Abdul-Aziz City for Science and Technology, Project number ARP-245-29.

Results: The study consists of 583 participants, their mean age was 34.2±13.17 year, 292 (51.9%) male and mean BMI was 27.5 ±5.53 kg/m2, 363 (65.6%) had a BCS scar, the contact to the TB patients represented by 33 (5.6%) and 7 (1.2%) had a previous TB infection. Positive result for QFT-GIT was found in 72 (12.8%) participants, 48 (68.0%) of them had a BCG scar, only 2 (2.9%) and 4 (5.6%) had history of previous TB and contact of TB patients, respectively. Our study showed sensitivity of 90.62% (75-98%) and specificity of 91.53% (89-94%) with a positive predictive value of 39.19% (28-51%) and negative predictive value of 99.39% (98-99.9%).

Conclusions: In face of reduction of the limits of other technique, QFT-GIT is not a significant in diagnosis of latent TB. However, it is significant in ruling out the presence of disease.

Gram-Positive Cocci in Clusters in Blood Culture: It Ain’t Always Staphylococcus Spp! A Review of Aerococcus Urinaceae Infections

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Case report: A previously healthy 36 year old male presented with difficulty passing urine after sexual intercourse. This was associated with fever and dysuria. On examination, he was febrile at 37.9 degrees but did not appear septic. There was no loin tenderness, palpable bladder or prostatic tenderness; other systems were normal. He had raised white count of 16,000 (90% poly) and procalcitonin of 23.7. Urine microscopic examination showed pyuria. Blood cultures isolated gram-positive cocci in clusters. He was given empirical vancomycin to cover for Staph. Aureus and Coagulase-Negative Staphylococci. The gram-positive organism was subsequently identified as Aerococcus Urinaceae. Aerococcus Urinaceae, first described in 1992, as a catalase-negative environmental Gram-positive coccus growing in clusters; and colonizer of the urinary tract, is increasingly reported to cause urinary tract infections. It can also cause invasive infections such as bacteremia and infective endocarditis. Due to its morphology, it is often misidentified as staphylococci. On blood agar it causes alpha hemolysis and may also be mistaken for Streptococcus viridans. It also shares similar antibiotic resistance patterns as Enterococci spp and may be misidentified as such. This has therapeutic implications. We review and discuss the infections caused by Aerococcus Urinaceae, its diagnosis and management.

Biofilm Production and Antibiotic Resistance Pattern in Clinical Isolates from Indwelling Medical Devices

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Background: Microbial biofilms pose great threat for patients requiring indwelling medical devices (IMDs) as it is difficult to eradicate them. Besides, sublethal concentration of some antibiotics has been shown to induce biofilm in bacteria. It is, therefore, crucial to follow an appropriate and relevant method for the detection of biofilms and hence the clinician can choose appropriate antibiotic for the treatment.

Methods: This prospective analysis included 65 prosthetic specimens. After isolation and identification of bacteria following standard methodology, antibiogram of the isolates were produced following Kirby-Bauer disk diffusion method. Detection of biofilms was done by tube adherence (TA). Congo red agar and tissue culture plate (TCP) methods.

Results: Out of 67 clinical isolates from indwelling medical devices, TCP detected 31 (46.3%) biofilm producers and 36 (53.7%) biofilm non-producers. Klebsiella pneumoniae, Pseudomonas aeruginosa and Burkholderia cepacia complex were found to be the most frequent biofilm producers. The TA method correlated well with the TCP method for biofilm detection. Higher antibiotic resistance was observed in biofilm producers than in biofilm non-producers. The most effective antibiotics for biofilm producing Gram-positive isolates were Vancomycin and Tigecycline, and that for biofilm producing Gram-negative isolates were Polymyxin B, Colistin Sulphate and Tigecycline.

Conclusions: Nearly forty-six percent of the isolates were found to be biofilm producers. The antibiotic susceptibility pattern in the present study showed Aminocillin to be an ineffective drug for isolates from the IMDs. For the detection of biofilm production, TA method can be an economical and effective alternative to TCP method.