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Brucellosis: A hidden factor behind reduced GDP in Afghanistan

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Afghanistan is a landlocked country where agriculture and livestock are the main income source of the majority of households. The protracted war has damaged all systems of the country in general, particularly agriculture and livestock, health and education, which in turn causes poor public water and sanitation and emergence of preventable infectious diseases of public health concern among humans and animals. Some of diseases like HIV, TB and Malaria have received global care and attention but others, like Brucellosis, have been forgotten, which, if not eradicated will significantly lower the productivity and economic growth of the nation. This analytical study of Brucellosis diagnosis and treatment in Afghanistan is based on my five years of clinical practice in Kabul Infectious Diseases Hospital where I witnessed new Brucellosis cases on a daily basis. Because there is currently no data on the prevalence of Brucellosis in Afghanistan, this study aims to focus international attention on the work being done to diagnose and treat this significant disease and to lay groundwork for future research on prevalence of and eradication efforts for Brucellosis. Diagnosis through bacteriological and serological examinations is utilized by hospitals in Afghanistan; however adjustments must be made to achieve an accurate diagnosis in a region where Brucellosis is endemic. The “gold standard” for the treatment of Brucellosis in adults is IM streptomycin (0.75–1 g daily for 14–21 days) together with doxycycline (100 mg twice daily for 6 weeks). However, access to modern diagnostic technology and treatment therapies remains an obstacle to Brucellosis eradication and doctors in Afghanistan often must innovate to overcome these challenges. Other challenges include low quality drugs imported to Afghanistan, lack of government interest in eradication campaigns, lack of health education programs in the country and a lack of veterinary doctors. This study concludes that Brucellosis is an increasingly detrimental disease in Afghanistan, one for which more investigative and surveillance research is required. However, Afghan doctors are taking notice and with more awareness, steps can be taken to achieve Brucellosis eradication.

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Candida yeast distribution in oral cavity isolates and their sensitivity to Fluconazole and Amphotericin B

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Candida species are ubiquitous in nature and some are part of the natural human biota, where they grow in skin and mucous membranes, as well as the gastrointestinal and genital tract. They are most frequently isolated from the oral cavity and detected in approximately 31% to 55% of healthy individuals. Some species of yeast are benign commensals and can switch to a pathogenic state in relation to the health status of the individual and invasiveness of the organism. Among invasion mechanisms, *C. albicans* and *C. dubliniensis* are known to change phenotypically from yeast to hyphae; in some species related to candidiasis, genotypic changes include resistance in previously sensitive strains among exposure to antifungal. Geographic factors play an important role in the distribution of infection-related species. Studies on geographic diversity help detect pathogens with high virulence or increased incidence and prevalence. It is estimated that the global incidence of candidiasis is between 4-7 cases / 100,000 inhabitants / year. Candidiasis is treated with a limited variety of antifungal drugs; among these, polyenes such as amphotericin B and nystatin which alter the cell membrane and azoles that inhibit ergosterol synthesis. There are currently few antifungal agents; therefore mycotic infection treatment options are reduced. Oral cavity samples of 115 healthy individuals were analyzed and isolated yeast strains were identified by RFLP-PCR and CHROM agar. Sensitivity tests to Fluconazole and Amphotericin B were performed by the sensi-disc method

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