

Editorial Highlights on Medical Microbiology (Special Issue)

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Editorial Note

This year, the Journal of Medical Microbiology and Diagnosis commemorates its decade long publication service in the field of Microbiology. With a successful International publications record, the journal has already begun compilation of the third issue in the 9th volume. In addition to the regular issues the journal has been publishing special issues, supplements and conference proceedings from time to time. In general, the journal covers all including Bacteriology, Clinical and Medical Diagnostics, Parasitology, Bacterial Infections. With good citation record, the journal is included in indexing databases conferring wide geographical outreach, such as Index Copernicus, Open J Gate, CAS Source Index along with simultaneous port-production digital media promotion policy. Ever since its inception in the year 2012 the journal has been consistently producing quality articles sourced from all across the world. The journal holds impeccable record of regular bimonthly issue release frequency with publication time lines.

Acinetobacter baumannii is a nosocomial pathogen which the World Health Organization 's considered number one critical priority pathogen [1]. It has become a growing problem in hospitals as a predominant multi-drug resistant that left clinicians with limited treatment options. Its main mechanisms for β -lactam resistance are the production of carbapenems especially Amber class D β -lactamases followed by B β -lactamases. NDM-1 which is an example of the later poses a major health concern particularly in the light of its spread through population. To precede our study, 74 *Acinetobacter baumannii* isolates were collected from hospital laboratories during the period from July 2017 till June 2018. Antimicrobial susceptibility testing was done by Kirby-Bauer Disc Diffusion method (KBDD) and Minimum Inhibitory Concentration (MIC) was detected using E-test method. CRAB ones were tested by both of Modified Hodge Test (MHT) and Imipenem EDTA Combined Disc Test (CDT) to detect metallo β -lactams (MBL) producers. Then existence of NDM-1 gene was further identified. All of the 74 *Acinetobacter baumannii* isolates were found to be multi-drug resistant (MDR). 36 of them (48.65%) were resulted as carbapenem resistant and 27 (36.49%) were metallo β -lactams (MBL) producers. 12/27 (44.44%) MBL poses NDM-1 gene in the first detection procedure while the other negative 15 ones the percentage of NDM-1 was found to be 10/15 (66.67%) when using different primer. PCR products were then verified by DNA sequencing. The final consensus sequences were analyzed and submitted to NCBI GenBank data base, representing accession numbers are JF-838352.1, MK-682768.1 and MN-251667.1. The alignments showed similarity ranged from 94%-96.4% amino acids identity. We concluded that detection of antibiotic resistant *Acinetobacter baumannii* revealed that multi-drug resistance arises dramatically due to the indiscriminate use of antibiotics and the poor applying of infection control precautions. These results

emphasize the importance of implementation and comply both of antibiotic and infection control policies.

The frequency of fungal infections is considerably increased worldwide. This increasing is directly associated with the growing numbers of immune-compromised patients, the prolonged use of broad-spectrum antibiotics, and to the large use of invasive dispositive. These opportunistic mycoses are commonly caused by the genus *Candida spp* and *Candida albicans* is undoubtedly the most frequently reported species in clinical diagnostic laboratories [2]. It has been known for some time that *C. albicans* represents a 'complex' of genetically two different strains: *C. albicans* and *C. dubliniensis*. However, early work showed that species of the '*C. albicans complex*' were more genotypically heterogeneous and can be divided into three groups/strains. In 1993, "*C. africana*" was described as a new biovariant of *C. albicans*. Discrimination between species of the '*C. albicans complex*' needs the application of accurate and reliable tests demanding DNA analysis, such as DNA amplification by PCR with specific primers and DNA sequencing. In Tunisia, the global epidemiology of candidiasis is still unclear and useful data on *C. albicans*, *C. dubliniensis*, and *C. Africana* are scarce also adds to the misunderstanding of their impact on human pathology. In this study, we describe an essay to differentiate these three species which represent a daily challenge for the clinical diagnostic.

The research work published in the current year find immense relevance in elucidating the role of angiogenesis as prognostic indicator in osteosarcomas, finding a potential target for novel anti-angiogenic therapies, developing preventive and therapeutic approaches for equine health; improve their welfare and health status as well as in designing of safe cart and harness.

The collective efforts and contributions of the authors, the associated reviewers, editorial board members and the journal management in publication of these quality articles are highly appreciated and commendable. Recently the journal has transited to a new domain under the brand new banner of Hilaris Publishers which has given great attention to animal health by formulating special issues: "Pathogenesis and epidemiology of Corona Virus". As evident, the immediate focus of the journal will be on articles pertaining to health as affected by the current pandemic situation.

References

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