عنوان مقاله:

Molecular Investigation of Outer Membrane Channel Genes Among Multidrug Resistance Clinical Pseudomonas Aeruginosa Isolates

محل انتشار:

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خلاصه مقاله:

Background: Multidrug resistance Pseudomonas aeruginosa (MDRPA) is most important issue in healthcare setting. It can secrete many virulence effector proteins via its secretion system type (T۱SS-T۶SS). They are using them as conductor for delivering the effector proteins outside to begins harmful effect on host cell increasing pathogenicity, competition against other microorganism and nutrient acquisition. Methods: The study include investigation of ۵۰ isolates of MDRPA for transport secretion system and resistance for antibiotics. Molecular diagnosis using P. aeruginosa specific primer pairs, investigation of AprF, HasF, XcpQ, HxcQ, PscC, CdrB, CupB۳, and Hcp using specific primer pairs by PCR were also performed. Results: The results revealed high resistance to beta lactam antibiotics (۷۸% for ceftazidime, ۷۸% for cefepime and ۴۶% for piperacillin) can indicate possessing of isolates for beta lactamases and this confirmed by dropping resistance to piperacillin to ۱۶% when combined with tazobactam. Also, the results shown the ability of MDRPA for pyocyanin biosynthesis using the system of genes. Conclusions: The current study conclude that all isolates of P. aeruginosa were highly virulent due to their possessing of all transport .secretion system to deliver different effector proteins with possible harmful effects of these proteins

کلمات کلیدی:

.Drug resistance, MDR, Efflux pump, Pseudomonas aeruginosa