P140 - 722: COMPARISON OF THE PREVALENCE OF METALLO-B-LACTAMASE RESISTANCE OF PSEUDOMONAS AERUGINOSA BETWEEN 1396 AND 1397 BY DOUBLE DISK SYNERGY TEST AND COMBINE DISK METHODS IN MASHHAD'S HOSPITALS

Kowsar Assad allah pour[1], Gholamreza Hashemi tabar[2], Mehrnaz Rad[3]

1. Department of Pathobiology, Faculty of Veterinary Medicine, Ferdowsi University of Mashhad iran
2. Department of Pathobiology, Faculty of Veterinary Medicine, Ferdowsi University of Mashhad iran
3. Department of Pathobiology, Faculty of Veterinary Medicine, Ferdowsi University of Mashhad iran

Background and Aim: In recent years, Pseudomonas aeruginosa infection has been one of the most commonly reported nosocomial infections, especially in patients with poor deficiency. These days treatment of this infection is a serious problem due to the spread of antibiotic resistance. The aim of this study is to compare the development of metallo-β-lactamase resistance of this bacteria with phenotypic potential in the period 1396 to 1397.

Methods:80 samples of Pseudomonas aeruginosa have been collected from hospitals in Mashhad during the last two years, which 40 samples are related to1396 and the rest to1397. Then we investigated the resistance of metallo-β-lactamase of the samples by phenotypic methods Double disk synergy (DDST) and Combine disk.

Results: Of the 80 collected samples (60.5%) belonged to men and (39.5%) belonged to women. The samples had been obtained by: urine (45%), wound (23.75%), respira¬tory tract (21.25%), Secretion (5%), blood culture (3.75%) and eyes (1.75%). Meanwhile, (20%) of samples from 1396 demonstrated metallo-β-lactamase resistance by DDST method and (40%) by Combine disk. And in 1397 (45%) by DDST and (55%) Combine Disk were Positive.

Conclusion: Most of the samples were isolated from the urine and the level of resistance of metallo-β-lactamase in 1397 have increased compared to 1396: DDST (25%) and Combine disk (15%). Considering the increasing of antibiotic resistance, identifying the type of resistance and selecting the appropriate drug can be a major step in the treatment and control of infections caused by this bacteria.

Keywords: Pseudomonas aeruginosa, Metallo-β-lactamase resistance, Combine disk, Double disk synergy test