

عنوان مقاله:

Antibiotic resistance pattern and serotyping of Escherichia coli producing siderophore in people with urinary tract infection

محل انتشار:

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خلاصه مقاله:

Urinary tract infection is one of the most common bacterial infections of human. The most common agent of urinary tract infection is Escherichia coli . This study aims to determine the prevalence of uropathogenic E. coli urinary infection in human with different antimicrobial resistance, and quantitative and qualitative study of siderophore production and their association with the ability to cause infection with the isolated E. coli. All of these studies have been done in Aria hospital at Rasht city (Iran). One hundred thirty samples from patients with urinary tract infection were collected. Serotyping was performed according to agglutination on the slide. Qualitative measurements of siderophore were performed by colorimetric or liquid assay and determination of the type of produced siderophore was also done by Csaky's Assay and Arnow's Assay. Different antibiotics sensitivity tests performed with Kirby Bauer and disk diffusion. From the ۱۳۰ samples, ۳۳ cases of urinary tract infections were related to E.coli. Among them they showed the most susceptibility to nitrofurantoin antibiotic. Most of the serotypes were O۱, O۲۹, O۱۲۶, and O۱۵۹. It was revealed that ۸۷.۵ % of the samples, were positive for siderophore and according to the OD, the samples of enterobactin siderophore were more than the aerobactin siderophore in all isolates. In general this study shows that .most of the strains produce siderophore and shows that the nitrofurantoin is the best antibiotic to treat urinary tract infections caused by E. coli

کلمات کلیدی:

E. coli, urinary infection, siderophore, antibiotic, serotype

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