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Background and Aim: Escherichia coli is one of the most common and major bacterial agents in human urinary tract infections. Attachment factors such as fimbriae type 1 and fimbriae curli can cause colonization in the urinary tract. The aim of this study is to find and determine the fimA gene (type 1 fimbriae) and the csgA gene (curli fimbriae) in Escherichia coli isolated from urinary tract infections.

Methods: In this study, 72 samples of Escherichia coli isolated from human urinary tract infections were collected from hospitals in Mashhad in 1393-1396 and the samples were approved by biochemical tests. Then with specific primers, the genes were studied by multiplex PCR assay.

Results: The results showed, all isolates (100%) had csgA gene and 56 isolates (78%) had fimA gene and 16 isolates (23%) lacked the fimA gene from 72 isolates.

Conclusion: Most of the isolates had csgA and fimA genes. According to the results, these genes should be considered for the treatment and prevention of urinary tract infections. And in order to the inhibition of attachment factors these genes should be studied further.

Keywords: Urinary Tract Infection / Escherichia coli / Multiplex PCR / fimA / csgA /