

## Comparision Study of Presence Eight Correlated Gene with Avian Pathogenic *Escherichia coli* in Human Uropathogenic *Escherichia coli*

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**Background & Objectives:** A wide range of extra intestinal infections in humans and vertebrate animals are created by the Extra intestinal *E.coli* strains (EXPEC). Including the APEC (Avian pathogenic *Escherichia coli*) and urinary tract infection (Uropathogenic *Escherichia coli*) noted in humans. Recent studies indicate that *E.coli* of the animal is the suitable source for emergency presence of UPEC. The aim of study is evaluation of the presence virulence factors between APEC in UPEC.

**Methods:** This study investigated the presence of associated genes (astA, iss, Iranp2, papC, iucD, tsh, vat, cva / cvi ) with APEC in UPEC of isolated from patients with UTI west of Tehran by using multiplex PCR. The correlation was evaluated by chi-square test.

**Results:** All isolates of urinary tract infection were having with different genes astA (13 of 100), iss (11 of 100), Iranp2 (33 of 100), papC (3 of 100). None of these genes isolated iucD, tsh, vat, cva / cvi carrying did not. While the 28 isolates of APEC study of genes were required astA (24 of 28), iss (27 of 28), Iranp2 (15 of 28), papC ( 23 of 28), iucD (24 of 28), tsh (24 of 28), vat (24 of 28), cva / cvi (14 of 28).

**Conclusion:** The results showed that there are meaningful relationsheep between the presence of genes for virulence astA, iss, Iranp2, papC, in APEC and UPEC. genes iss, having the highest frequency in both strains as well as the frequency of 33% gene irp2 in strains of UPEC are proposed likely the most important factors that contributing in the presence of extra intestinal *Escherichia coli* live.

**Keywords:** *E.coli*; Human; Avian