A. Introduction

*Escherichia coli* O157:H7 is a zoonotic agent of the type of Shiga toxin producing *Escherichia coli* that can cause disease in humans, and cattle is known as the main reservoir of these bacteria (Karmali et al., 2010). The infection by these bacteria in animals usually asymptomatic, whereas these bacterial infection in humans usually show clinical symptoms i.e. diarrhea, colitis hemorrhagic and hemolytic uremic syndrome (HUS) (Acheson, 2010; Wani et al., 2004). This study report the application of AP-PCR method in order to study the zoonotic potency of *E. coli* O157:H7 from animals as a main reservoir of these bacteria to human.

B. Methods

Cultivation of 14 isolates of *E. coli* O57 i.e. ATCC 43894 (positive control), KL52(7), KL87(7), KL30(4), KL45(1), KL(48(2), KL85(1), KL83(5), KL24(5), KL68(1), KL-106(3), KL-55(6), SM-25(1),SM-7(1)

Extraction of bacterial DNA using QIAamp DNA Mini Kits

AP-PCR using primers M13F and M13R with PCR program: I. 94°C, 5 min; II. 39 cycles (94°C, 5 min, 35°C, 1 min, 72°C, 1 min), III. 72°C, 5 min.

Evolutionary distance of each isolate was measured with algorithm unweighted pair group method using arithmetic averages (UPGMA)

Phenogram of *E. coli* O157:H7, which was constructed using UPGMA, which placed both human and animal isolates in one clade

D. Conclusion

Arbitrarily primed polymerase chain reaction (AP-PCR) method provides for simpler and rapid for tracing of zoonotic agent *E. coli* O157:H7, which were supported by its highly sensitivity

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References
