E361 Study on the characterization of enterovirulent *E. coli* isolated from meat.

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The purpose of this survey was to define the characteristics of 65 isolates of enterovirulent *E. coli* isolated from beef, pork and chicken. Isolates from beef were determined to be the serotype of O5, O6, O8, O26, O27, O32, O38, O44, O55, O62, O63, O86, O114, O147, O148, O159, O162, O164 and O169. Isolates from pork were belong to serotype of O1, O6, O8, O25, O27, O63, O103, O115, O146, O153, O162 and O168. And, isolates from chicken were O5, O6, O8, O36, O55, O63, O78, O114, O119, O125, O153, and O168. Among isolates from beef, O27 was the predominant serotype. Serotype O6, O8 and O63 were commonly found from three different sources. Beef isolates were resistant to erythromycin and bacitracin, and pork isolates were resistant to erythromycin, tetracycline and bacitracin. Chicken isolates were resistant to ampicillin, carbenicillin, streptomycin, erythromycin, tetracycline, bacitracin and nalidixic acid. Plasmid profile of isolates were diverse but 60 MDa and 40 MDa plasmid DNA were relatively common among isolates.

E362 Study on the virulence factor of Enterovirulent *E. coli* isolated from Korea

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In this study, the virulence factor of Enterovirulent *E. coli* isolated from clinical specimens and meats were examined by multiplex polymerase chain reaction(MPCR) and cytotoxicity test. As a result of MPCR, Virulence factor LT(heat-labile enterotoxin), ST(heat-stable toxin), VT I (verotoxin I), VT II (vero toxin II), *ipa* I and EAF(EPEC adherence factor) were confirmed to produce 320bp, 147bp, 475bp, 863bp, 422bp and 397bp products, respectively. 120 isolates were found to harbor virulence factor by MPCR. Among them 94 isolates(78%) produced LT, 2 isolates(2%) produced ST and 3 isolates(2.5%) produced VT. EAF and *ipa* I were found in 18 isolates(15%) and 3 isolates(2.5%), respectively. So, LT is assumed to be the most predominant virulence factor among Korean Enterovirulent *E. coli* isolates. As a result of cytotoxicity test, 5 isolates showed cytotoxicity against vero cell and 4 isolates were cytotoxic against HeLa cell. 6 isolates(9%) from meat and 15 isolates(28%) from clinical specimens showed β-hemolysis on blood agar. Among the hemolysis positive isolates, majority of them were belong to serotype O6 and O18.