ABSTRACT

E. coli is normal commensal of human gastrointestinal tract. However upon entry from un-natural sites it may cause mild illness from diarrhea, nausea to extreme infection such as hemolytic uremic syndrome and thrombo cytopenia purpura and kidney failure. *E. coli* is prevalent in six continents. The infective dose for food poising is very low and causing high morbidity and mortality among human beings. 1.8 million deaths of children and 2.1 million deaths of adult occur every year in the whole world due to food borne diarrhea and illness caused by *E. coli* O157:H7. Every year in developed countries almost 1/3 of human population is affected by food borne illness caused by *E. coli* O157:H7 and in developing countries about 650 million cases were reported. The primary reservoirs of *E. coli* are cattle and chickens. The major cause of illness of this bacterium is due to contamination of raw vegetables, meat, swimming pools, water reservoirs, dairy, beef and chicken products. Prevention of the disease depends upon the surveillance and early diagnosis/detection of *E. coli* O157:H7 which will serves as early warning system for forecasting impending outbreaks. In current study a total of 80 (N=80) chicken meat samples which includes chicken raw meat (leg piece n=20, Chest piece, n=20), frozen processed chicken meat (n=20) and local ground chicken meat (n=20) were collected from different retail chicken meat shops Lahore. Collected meat samples were screened for *E. coli* O157:H7 using culture techniques, biochemical tests and polymerase chain reaction (PCR) for detection of *rfbO157 and flicH7* genes. Of the 80 samples screened, 15 samples were found positive as non sorbitol fermenting (NSF) *E. coli* indicating 18.75%, 11 samples were found positive by biochemical revealing 13.75% percentage positivity and 7 samples were found positive through PCR showing 8.75% positivity. Statistical analysis (Chi square test for association) showed no significant difference between the isolated sources of the chicken meat indicating that there is no significant association exists between the isolated sources by culture method, biochemical tests and through PCR. This study showed that all isolates were sensitive to novabiocin, gentamicin, kanamicin and chloramphenicol. The results of disc indicated that all isolates of *E. coli* were highly resistant to streptomycin and trimethoprim-sulfame-thoxazole and resistant to ciprofloxacin ampicilin tetracycline.