**CHAPTER-4**

**Discussion**

In this study, the overall prevalence of *E. coli* in chickens was recorded as 74% which corraborate with the findings of Hossain *et al*. (2008) who reported 60% prevalence and Nazir *et al* (2004) who observed 62.5% prevalence of *E. coli* in chickens. In another study, 66.67% prevalence of *E. coli* was noticed in duck (Avishek, 2010). Antibiotic resistance of *E. coli* isolates of chickens recorded in this experiment might be due to indiscriminate use of antibiotics (Bonnet et al., 2009). These drug resistant *E. coli* can be spread in the environment where humans and animals acquire infections resulting difficulties in treating these cases (Alexander et al., 2009). The prevalence of antibiotic resistant *E. coli* observed in this study appeared to be similar to several other studies (Khan et al., 2005; Nazir et al., 2005). Chicken intestine can serve as a reservoir for *E. coli* strains capable of causing extra-intestinal infection in avian and mammalian hosts (Ewers et al., 2009). Clinically, healthy chickens probably have zoonotic potential since transmission between birds and humans via physical contact, contaminated dust and egg is possible. Feces tends to be leaked from the carcass when the evisceration stage itself gives an opportunity for the interior carcass to receive intestinal bacteria (Gormley et al., 2011). Contaminated meat and other foods may play a role in the local spread of *E. coli* strains (Vincent et al., 2010). The use of antimicrobial agents in food animal production may cause emergence of antimicrobial drug-resistant strain of *E. coli.* Antimicrobial drug-resistant *E. coli* was reported in humans due to the consumption of contaminated chicken (Manges et al., 2007).