**Sanitary status of inland pollution sources in the drainage of Iwon-myeon (Taean-gun) and antimicrobial resistance characteristics of isolated Gram-negative bacteria**

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In this study, we investigated the contamination level of the sanitary indicative bacteria in the discharge water from inland pollution sources along the coast line of Iwon-myeon (Taean-gun)Chungnam Province, located in the west coast of Korea. Gram-negative bacteria were isolated during the investigation and the antimicrobial resistance patterns of the isolates were examined to estimate their impact on the coastal environment. The ranges of total coliform and fecal coliform of 12 samples from four major inland pollution sources were 79-490,000 MPN/100 mL and 2.0-490,000 MPN/100 mL, respectively, with the highest level of fecal contamination at Station No. 3. A total of 137 strains (14 genus) were isolated, of which 86 strains (62.8%) were Enterobacteriaceae. The identified isolates were as follows: Pseudomonas spp. (35 strains), Klebsiella spp. (20 strains), Serratia spp. (20 strains), and Escherichia spp. (19 strains). The isolated Gram-negative bacteria showed the highest antimicrobial resistance to ampicillin (81.8%), followed by amoxicillin/clavulanic acid (64.2%), ceftiofur (61.3%), and cefoxitin (59.1%). Antimicrobials in which less than 10% of isolates showed antimicrobial resistance were ciprofloxacin (3.6%) and gentamicin (2.2%). Resistance to one or more antimicrobials was observed in 121 strains (88.3%) and 84 strains (61.3%) showed a tendency for multiple antimicrobial resistance.