



Isolation and screening of bacterial enteropathogens for assessing the water quality of samples collected from different areas of Patna in Bihar

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Abstract : *The present study was conducted to isolate and screen bacterial enteropathogens from water collected from different localities of Patna, Bihar. Five different strains of bacterial enteropathogens namely Escherichia coli, Shigella sp., Salmonella sp., Enterobacter sp. and Klebsiella spp. were isolated from 4 different areas of Patna, proving that water is a reservoir for bacterial enteropathogens. Escherichia coli and Enterobacter sp. were the most frequently occurring bacterial enteropathogens while the occurrence of Salmonella sp. and Shigella sp. in the water samples was the rarest among the all. Klebsiella sp. was found to be present in nearly all the water samples of all the areas with the maximum abundance in the Mahendru area.*

Antibiotic susceptibility profiles showed that Nalidixic acid was the most effective antibiotic against the isolated bacterial enteropathogens while, Amoxycylav and Ampicillin were least effective.

It was concluded that water is an important reservoir for enteropathogens in the areas of the study. Therefore, it is incumbent upon local communities, government and even school and college students, to realize the significance of water bodies in their surrounding areas and to see that these precious water resources are neither contaminated nor choked.

Key Words: *Antibiotic susceptibility, bacterial enteropathogens, water quality.*