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Original Article

Evaluation of *Yersinia enterocolitica* diagnostic approaches

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Abstract:

Background and Aim: *Yersinia enterocolitica* is a Gram-negative bacterium which its strains are involved in human diseases. To differentiate among pathogenic and non-pathogenic types, tests such as Congo Red absorption, Crystal Violet, and Calcium Dependency test are used. These tests are based on existence of 70-75 kb plasmids and sometimes, with respect to plasmids instability, we will face false negative results. Therefore, by setting up a methodology based on stable chromosomal genes of pathogenic agent we can overcome this hurdle. The goal of this survey was comparison among routine and molecular diagnostic approaches in the identification of *Y. enterocolitica* pathogenic strains.

Materials and Methods: Some Gram-negative bacteria from family Enterobacteriaceae and some *Y. enterocolitica* strains isolated of human beings and environment were evaluated.

Results: Obtained results showed that 4 *Y. enterocolitica* strains isolated of human beings were PCR positive while PCR results of environmental strains, one human strain and non-*Yersinia* strains were negative.

Conclusion: The mentioned approach can be used as a method to differentiate among pathogenic and non-pathogenic strains of *Y. enterocolitica*.

Key words : *Yersinia Enterocolitica*, Pathogenesis, PCR

Keywords:

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