culture (approximately 2 x 10^8 leptospires/mL) at seven days interval starting from one millilitre as the first dose.

MAT was performed as described by Cole et al in microtitre plates. Positive controls with known hyperimmune sera and antigen controls with PBS were regularly used in each test. The plates were incubated overnight at 25°C. the end point titre was the highest dilution of the serum in which 50% of the leptospiral cells were agglutinated. Titres equal or higher than 100 were considered as positive. All the results obtained from MAT were statistically analyzed as per the methods described by Snedecor and Cochran.4

Out of 42 sera samples from persons with jaundice, 10 (23.81%) were found positive for leptospirosis. Eight out of 10 were positive for L.pomona and 2 (20.00%) were positive for L.grippotyphosa. None of the patients sera reacted against L.canicola and Licterohaemorrhagiae and none showed mixed reaction with more than one serovar.

The prevalence of these four leptopiral serovars in hospitalized jaundice patients was statistically highly significant (p<0.01). L.pomona was found as the most prevalent serovar in these patients. The highest occurrence of this serovar in these patients and the huge pig population in this region may be indicative of these animals as the natural reservoir host for this species of leptospira in particular. Besides, the huge rodent population, and the intermingling of these rodents with the pigs and close association with humans may also be a source of infection for these patients with this serovar. The seroprevalence of these serovars in human jaundice patients had also been studied by Joseph and Kalra5 in northern India. They found a very low prevalence of only 3 patients (one with L.icterohaemorrhagiae and L.pomona and two with Licterohaemorrhagiae) out of 43 positive for agglutination reaction. The present findings might therefore demand the extra attention for the prevention of this disease.

References


C Debnath, *NK Pal, AK Pramanik, M Biswas
Department of Veterinary Public Health (CD,AKP, MB)
West Bengal University of Animal and
Fishery Sciences, Kolkata – 700 037, India and
Department of Bacteriology and Serology (NKP)
Calcutta School of Tropical Medicine
Kolkata – 700 073, India.

*Corresponding author
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Invasiveness – An Indicator of Differentiation of Virulent and Non Virulent Isolates of Yersinia enterocolitica

Dear Editor,

Yersinia enterocolitica, an emerging pathogen has been implicated as causative agent for a number of clinical manifestations predominantly diarrhea. Invasiveness into epithelial cells is an important pathogenic mechanism of enteric bacteria, including strains of Shigella, Salmonella, Escherichia coli and Yersinia.1 Clinically, the invasive bacteria are capable of producing dysentery like disease or exudative diarrhoea. Pathogenic Y.enterocolitica strains are characterized by their ability to adhere to and invade epithelial cells.2 Demonstration of epithelial invasiveness of Enterobacteriacea can be done by Sereny test.3 To assess the relative importance of Sereny test twelve isolates of Y.enterocolitica were tested by Sereny test.
One isolate produced definite, three mild and three minimum conjunctivitis while five isolates did not produce any conjunctivitis. Either absence or mild keratoconjunctivitis might be due to absence of plasmid in the isolates tested in this study. Sereny positive isolates were found to be virulent when tested in mice for diarrhoea and death. The observation is supported by Schiemann and Devenish\(^4\) who suggested that invasiveness of \textit{Y}.\textit{enterocolitica} for HeLa cells was not dependent on plasmid. As for \textit{Y}.\textit{enterocolitica}, invasiveness test may contribute to the diagnosis of invasive \textit{Y}.\textit{enterocolitica} as a cause of exudative diarrhoea.

References


M Lal
Department of Microbiology
Christian Medical College
Ludhiana – 141 008, Punjab, India.

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