

RESEARCH NOTE

COMPARISON OF V_i SEROLOGY AND NESTED PCR IN DIAGNOSIS OF CHRONIC TYPHOID CARRIERS IN TWO DIFFERENT STUDY POPULATIONS IN TYPHOID ENDEMIC AREA OF INDIA

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Abstract. For detection of chronic typhoid carriers, nested PCR targeting flagellin the gene of *Salmonella enterica* subspecies *enterica* serotype Typhi was carried out on DNA extracted from hepatobiliary specimens from 424 autopsies which were apparently free from gallbladder pathology on postmortem examination. The second study population was 508 healthy volunteers, who did not suffer from typhoid fever during the preceding year and whose sera were subjected to detection of carriage by estimation of Vi antibody levels using an indirect hemagglutination assay. Males of both study populations had comparable rates of detection by the two methods, 6.3% by PCR and 4.1% by Vi serology. Similarly, females in both study groups had comparable frequency of detection of chronic typhoid carriage using the two methods, ie 13.1% by PCR and 15.1% by Vi serology. *S. Typhi* specific immunosuppression could be speculated in females of 51-60 years as only 40% were positive by Vi serology against 100% by nested PCR. Vi serology may be recommended for community based detection of chronic typhoid carriers.

Key words: chronic typhoid, nested PCR, Vi serology, carriers, India

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