

PRESIDENTIAL ORATION

PROGRESS IN RESEARCH OF DIAGNOSIS AND VACCINES IN AMOEBIASIS

Subhash Chandra Parija MD, PhD, DSc, FRCPath

*Professor and Head, Department of Microbiology,
Jawaharlal Institute of Postgraduate Medical Education & Research, Pondicherry*

Abstract

Entamoeba histolytica the causative agent of amoebiasis causes 34 million to 50 million symptomatic cases of amoebiasis worldwide every year, causing 40 thousand to 100 thousand deaths annually. Advent of molecular methods such as multiplex PCR and real time PCR have facilitated better and accurate diagnosis of *E. histolytica*, *E. moshkovskii* and *E. dispar* in stool and other specimens. Multiplex PCR for diagnosis of amoebic liver abscess using urine and saliva as clinical specimens and found encouraging results. Real-time PCR is a new and a very attractive methodology for laboratory diagnosis of amoebiasis because of its characteristics that eliminate post-PCR analysis, leading to shorter turnaround times. Microarray-based approaches represent an attractive diagnostic tool for detection and identification of amoebae in clinical and epidemiological investigations. Development of vaccines against amoebiasis is still in its infancy. However, in recent year's progress has been made in the identification of possible vaccine candidates, the route of application and the understanding of the immune response that is required for protection against amoebiasis. Thus it is just a matter of time, and amoebiasis vaccine for human trials will be available in next few years.