A Rapid and Simple Method for the Identification of Enteropathogenic Bacteria

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The results of this method are compared with the results obtained with the classical techniques including inoculation of triple sugar iron agar performed independently in the Regional Public Health Laboratory to which the clinical specimens were sent also. A total of 707 specimens was thus examined. 645 were found negative in both laboratories. Salmonellae were isolated from 44 samples in both laboratories while salmonellae were isolated from 6 specimens in our laboratory only and from 12 specimens in the Regional Public Health Laboratory only. These specimens appeared to be from 15 salmonella carriers fallen ill from another enteric infection. However 6 of them were recognized in both laboratories the salmonella being isolated by both from different samples. Furthermore 2 Shigellae and 1 Yersinia enterocolitica were identified incidentally by means of the new medium which were missed in the Regional Public Health Laboratory. A higher yield may be obtained by complementing the method with a preliminary enrichment in buffered peptone-water. A simplified method is developed for the rapid identification of enteropathogenic bacteria, allowing the diagnosis to be advanced for 42 h at least. The method consists of inoculating inclined ureum agar medium, together with a semi-solid medium containing mannitol, iron sulfate and peptone. The first medium allows rapid ureum-desintegrating bacteria to be discarded, while in the second medium motility, mannitol fermentation, gas formation, iron reduction and indol production can be appreciated. In this way, a preliminary diagnosis can be made already 24 h after the obtention of isolated colonies. The diagnosis is then confirmed by serological agglutination and further fermentation reaction.