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Research article

Isolation and characterisation of enterococci from a tertiary care centre

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Abstract

Enterococci comprise a significant portion of the normal flora of the gastrointestinal tract (GIT) with some also being found in gastrointestinal, vaginal secretions and in perineal area. Enterococci account for as many as 10% of cases of neonatal bacteremia and septicemia. Enterococci have become important nosocomial pathogens world-wide and are associated with a high mortality. **Aim:** To isolate and speciate Enterococcus from heterogeneous samples collected from Government Rajaji Hospital (GRH), Madurai. **Methods:** A total of 200 isolates from various clinical samples were included and processed according to standard protocol in different wards at GRH, Madurai. The specimens were plated on Nutrient Agar, MacConkey and Blood Agar plates and incubated at 37 °C overnight. Presumptive identification of the isolate as Enterococcus was done by Gram's stain, Catalase test, Bile Esculin hydrolysis, Heat resistance and Salt tolerance test. Further speciation was done by carbohydrate fermentation, pyruvate fermentation, arginine hydrolysis, potassium tellurite reduction. **Results:** Distribution of Enterococcus in this study showed that Enterococcus isolated from blood 20 (55.5%), urine 14 (38.8%), pus 1 (2.7%) and wound swab 1 (2.7%). On speciation, E. faecium 18 (50%), followed by E. faecalis 15 (41.6%) and E. durans 3 (8.3%). Isolates were more from paediatric ward. Of the 33.3% of the Enterococcus isolates from paediatric ward, 27.7% were between the age group 0-1 month. **Conclusion:** In this study distribution of Enterococcus isolates were more from pediatric age group. Mostly isolated from blood specimen 55.5%. E. faecium (50%) was the predominant species isolated

Keywords: Enterococcus, Gastrointestinal tract, Neonatal septicemia, Nosocomial pathogens.

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