Summary And Conclusion

Fungal infections are severe infectious complications frequently observed in neonates and are a major cause of morbidity and mortality in these patients. Candida and Aspergillus species account for the vast majority of fungal infections, but other emerging pathogens, such as Cryptococcus, Fusarium and others, can cause life-threatening infection in these hosts as well.

Diagnosis of fungal infections in neonates has been difficult because of insufficient sensitivity and specificity of conventional culture methods, and also by procedures that depend on the host functioning immune system, but within recent years, novel serological and molecular methods have been developed to improve the early diagnosis of invasive fungal infections which is essential for adequate therapeutic management.

In this study, 50 neonates had surveyed for fungal infection by fungal cultures; blood culture was done on BD BACTEC™ mycosis – IC/F culture vials and incubated monitoring system then subcultured on solid media (Candida Chromogenic Agar)

This study showed that there is a high incidence of fungal infection in neonates admitted in NICU as 40% of cases had positive BACTEC blood culture for mycosis.

To conclude, this study demonstrated that fungal infection is very common in NICU. Long use of antibiotics, total parenteral nutrition, mechanical ventilation and endotracheal intubation, major surgery are risk factors for candicemia. Thrombo-cytopenia and high CRP value are the major significant markers of systemic candidiasis.

In comparison to ordinary blood culture, BACTEC culture was more sensitive with much less time for diagnosis as BACTEC cultures were positive after 24hrs to 7 days while ordinary culture needs not less than 1 month to prove positivity or not.