SUMMARY AND CONCLUSION

Fungal infections are severe infectious complications frequently observed in pediatric intensive care patients 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.

Critically ill patients are immune suppressed, invasively monitored and exposed to aggressive medical interventions that put them at increased risk of infectious complications while residing in ICU.

Diagnosis of fungal infections 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.

This study was carried out on pediatric intensive care unit of Banha Children hospital. Number of patients included in this study was 150 representing the total number of the patients that were admitted to pediatric intensive care unit in the year of 2009 and had risk factor(s) to develop fungal infection such as endotracheal intubation, central venous and arterial lines, urinary catheterization, prolonged ICU stay, broad-spectrum antibiotics for more than 7 days, bacterial infections, corticosteroids, blood transfusion, recent surgery, immunodeficiency, neutropenia, undergoing

operation (especially of the gastrointestinal tract), critical illness or congenital anomalies.

All patients were subjected to the following; history taking including history of drug intake, invasive maneuver, surgical interference& blood transfusion, thorough clinical examination and recording laboratory parameters including complete blood count (CBC), C-reactive protein and fungal culture including blood culture for all cases and culture of other samples as urine and cerebrospinal fluid according to clinical condition of the patients.

fungal blood cultures was done on BD BACTEC™ mycosis – IC/F culture vials and incubated monitoring system then subcultured on solid media (Candida Chromogenic Agar).Other specimens as urine and CSF are cultured on sabouraud ager.

This study showed that the incidence of fungal infection in patients admitted in PICU was 17% of cases with positive culture for mycosis.

To conclude, this study demonstrated that fungal infection is very common in PICU. Long use of antibiotics, mechanical ventilation and endotracheal intubation and urinary catheterization are risk factors for candidemia. Thrombocytopenia and leucocytosis are the major significant markers of systemic candidiasis.