

Intravenous Fluconazole prophylaxis in clinical outcome of preterm neonates during hospitalization time

Introduction: systemic fungal infections is one of the most common causes of the mortality especially in preterm neonates, this fact clarifies the prophylactic role of antifungal therapy in reducing the mortality in these neonates. The aim of this study is the evaluation of the effect of Intravenous Fluconazole prophylaxis in clinical outcome of preterm neonates during hospitalization time .

Methods and materials: In a randomized , double-blind clinical trial , 93 preterm with a birth weight less than 1250 g who had no major congenital anomalies, enrolled into the study. Week of gestation , birth weight, history of antibiotics and maternal steroids and central venous catheter usage were recorded. During hospitalization the 6-week treatment with \approx 3mg/kg dose of fluconazole as once every 3 days in first 2 weeks, one ever 2days in second 2 weeks and every day in third 2 weeks, the second group did not received fluconazole . The outcomes including duration of mechanical ventilation , in-hospital mortality and the time of oxygen requirement were recorded . The data from two groups were analyzed using appropriate statistical tests .

Results: The neonates in two groups was matched for gestational weeks, birth weight and receiving the maternal steroids($P=0.342$, $P=0.059$, $P=0.221$) duration of mechanical ventilation, hospitalization period and the mortality rate was significantly more in neonates in control group comparing neonates receiving fluconazole($P=0.39$, $P=0.013$, $P=0.025$, $P=0.002$, $P=0.11$, $P=0.045$).

Conclusion: Upon the results of this study, we can conclude that the IV Fluconazole in low birth weight preterm neonates can improve the prognosis while reducing the mortality and morbidity.