ABSTRACT

Background: Azole antifungals have shown immuno-modulating features. Fluconazole has been shown to improve survival in sepsis.

Objective: To determine if empirical fluconazole therapy in patients with sepsis can reduce the development of MOF, ARDS, fungal infections and improve survival.

Methods: A total of 60 patients with sepsis or early septic shock due to either nosocomial pneumonia or intra-abdominal sepsis were alternatively randomized to Fluconazole group [30 patients] and received Fluconazole (200mg/day) plus conventional sepsis treatment or Control group [30 patients] and received only conventional sepsis treatment. Patients were subjected to full clinical evaluation, routine laboratory investigations, microbiological studies, CRP (on admission & day 4), the recording of APACHE II score (in the first 24 hours of ICU admission), and the calculation of SOFA score on a daily basis. They were followed up for a total of 30 days.

Results:

- Survival was significantly increased in the Fluconazole group (P-value = 0.031). This increase in survival was especially noted among patients with intra-abdominal sepsis (P-value = 0.032); while it was insignificant among those with nosocomial pneumonia (P-value = 0.021).
- Fluconazole therapy significantly reduced the development of MOF especially among patients with intra-abdominal sepsis.
- Fluconazole therapy nonsignificantly reduced the development of ARDS and fungal infections.
- Fluconazole therapy nonsignificantly reduced the need for organ supportive measures (mechanical ventilation, vasopressors & hemodialysis)
- Fluconazole therapy nonsignificantly increased the length of ICU stay, duration of mechanical ventilation & vasopressor support. This was explained by the longer survival in Fluconazole group.
- Fluconazole significantly reduced the level of CRP (a marker of inflammation) at day 4.

Conclusion: The use of fluconazole in patients with sepsis and early septic shock seems to be safe and associated with promising effects on the inflammatory cascade and survival especially among patients with intra-abdominal sepsis.

Key words: Fluconazole, sepsis, CRP..