IMPACT OF POSACONAZOLE PROPHYLAXIS ON INVASIVE FUNGAL INFECTION, ASPERGILLUS GALACTOMANNAN AND PERSISTENT FEBRILE NEUTROPENIA DURING AML INDUCTION THERAPY: A SINGLE-CENTER, REAL-LIFE EXPERIENCE
V. S. Sampath, A. T. Ching Yee, K. H0 Ong
Haematology, Tan Tock Seng Hospital, Singapore

Background: Posaconazole prevents invasive fungal infection (IFI) during induction chemotherapy in acute myeloid leukaemia (AML). The role of serum aspergillus galactomannan (GM) in diagnosis of IFI and the management of persistent febrile neutropenia (FN) during posaconazole prophylaxis is less clear. Aims: The aims are, to determine in patients having AML induction chemotherapy with posaconazole prophylaxis, incidence of IFI, role of serum GM and management of persistent FN for more than 96 hours. Methods: Prospective data was collected on 22 patients. Drug levels were not done. GM was performed twice weekly. Persistent FN was investigated with computed tomography (CT) and bronchoalveolar lavage (BAL) was discretionary. Empirical antifungal therapy was commenced in probable/proven IFI and unstable clinical status. Results: 2 out of 22 patients had fatal IFI. Both had radiological findings but negative serum GM and diarrhoea. Serum GM was done on 179 occasions with one positive result in asymptomatic patient.17 patients had persistent FN. CT showed pneumonia in 9 patients and sinusitis in 3 patients. 10 patients had positive blood cultures. 4 patients had antifungal treatment. One patient had BAL and was non-diagnostic.

Summary/Conclusion: Diarrhoea may impair posaconazole absorption and may have lead to IFI. Therapeutic drug monitoring may be useful. Serum GM is useless in initiation of pre-emptive antifungal therapy. In persistent FN, individualised decision-making using assessment of posaconazole levels, CT and BAL galactomannan may be the best approach to initiate antifungal therapy. Empirical therapy is an alternative but may increase cost and drug resistance.