CLINICAL INSIGHTS

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AZIBEST Tablet ***Issue IV, No.11, 2025***

Plasma concentration of Azithromycin and correlation with clinical outcomes in patients with enteric fever

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- Typhoidal *Salmonella* strains (*Salmonella enterica* serovar Typhi, Paratyphi A, Paratyphi B and Paratyphi C) are human host-restricted organisms causing typhoid fever and paratyphoid fever, collectively referred to as enteric fever.
- Azithromycin, an azalide macrolide antibiotic, has unique pharmacokinetic and pharmacodynamic (PK/PD) properties compared with other macrolides due to its dibasic structure. The drug concentrates in white blood cells (WBCs) and the WBC/plasma ratio is high, even at the end of active treatment, resulting in a prolonged post-antibiotic effect.
- This prospective cohort pilot study was performed to determine the PK of azithromycin and the role of extracellular plasma levels of azithromycin in predicting clinical and microbiological outcomes in adult patients (N=25) with uncomplicated enteric fever in South India who received the dosing of 20 mg/kg once daily oral or IV azithromycin for a total duration of 7 days.
- Treatment was successful in all 25 patients, with no clinical or microbiological failure, relapse or disease-related mortality and the outcomes assessed were fever clearance time (FCT), clinical cure, clinical failure, microbiological failure, relapse, complications and PK parameters of azithromycin.

Azithromycin was effective, well-tolerated, safe and efficacious oral antibiotic in treating patients with susceptible enteric fever infections.

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