Fosfomycin: Pharmacological Studies

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Summary

Fosfomycin is a new antibiotic, the L-cis-1,2-epoxypropylphosphonic acid, with a molecular weight of 138.1. Because of its acid nature, it forms organic and inorganic salts; of these, the calcium salt, used orally, and the sodium salt used parenterally, are currently used in clinical pathology. Oral fosfomycin is partially absorbed (30–40%), whereas intramuscularly the absorption is complete, and the blood concentrations obtained are proportional to the administered doses. Fosfomycin does not bind to protein of the plasma and its half-life is 1.7–2 h. The elimination of fosfomycin, once absorbed, is through glomerular filtration with a clearance similar to that of endogenous creatinine. The antibiotic concentration in urine, in a totally active form, may range from 300 to 3,000 $\mu\text{g}/\text{ml}$ depending on the route and administered dose. Due to its low molecular weight, fosfomycin diffuses very well into all organic liquids and tissues, passing into CSF, amniotic fluid, lymph, aqueous humor, bronchial secretion, purulent fluids, bone tissue, and lochia, and, in a lesser proportion, being excreted with bile and milk. The full text of this paper was published in: Future trends in chemotherapy. Proc. Int. Symp.

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