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Activity spectrum, pharmacodynamics, pharmacokinetics, and acute toxicity of polypeptide antibiotics

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Abstract

A mixture of cyclic polypeptides – polymyxins – was originally isolated from sporogenous *Bacillus polymyxa* bacterial culture in 1947. Polypeptides are justifiably considered as one of the first classes of natural antibiotics. In Russia the following polymyxins are registered: polymyxin B (for parenteral administration), polymyxin M (oral tablets for the treatment of intestinal infections, liniment, and powder for topical solution), and colistin (derivative of natural polymyxin E). Polymyxins are among the very first classes of natural antimicrobial drugs; they were developed in the early 1940s. This class includes antibiotics (polymyxin B, polymyxin M, polymyxin E – colistin), produced by sporogenous bacteria *Bacillus polymyxa.*