

Colistin

or **polymyxin E**, is a basic **polypeptide antibiotic** that acts **bactericidal on aerobic gram-negative rods**. It is a very **toxic antibiotic** that can be administered both locally and systemically. It is not absorbed orally into the systemic circulation but can be used to decontaminate the GIT. A post-antibiotic effect is observed.

Spectrum

Pseudomonas aeruginosa, *Bordetella* spp., *Escherichia coli*, *Klebsiella* spp., *Enterobacter* spp., *Salmonella* spp., *Shigella* spp., *Vibrio cholerae*, *Pasteurella* spp., *Haemophilus* spp.

Indication

It is a backup antibiotic and is therefore **never the first-line antibiotic**. The most important indications are **multidrug-resistant strains of *Pseudomonas aeruginosa***. It can be used locally for eye infections and in ENT for otitis externa. Intravenously (systemically) in sepsis, pneumonia or urinary tract infections caused by highly resistant Gram-negative microbes. Inhalation use in difficult-to-treat respiratory infections (cystic fibrosis) is also described.

Side effects

Strong nephrotoxicity, ototoxicity and neurotoxicity. There are also paresthesias, dizziness or anaphylactic shock. The effect of peripheral muscle relaxants also increases. Because of these side effects, **less toxic antibiotics are always preferred**.

Links

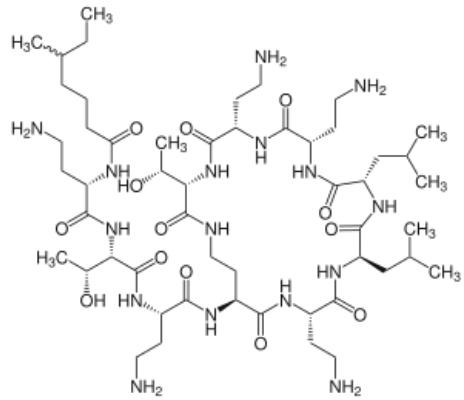
Related articles

- MCR-1
- *Pseudomonas*
- Cystic fibrosis

Literature

- LINCOVÁ, Dagmar a Hassan FARGHALI, et al. *Základní a aplikovaná farmakologie*. 2. vydání. Praha : Galén, 2007. ISBN 978-80-7262-373-0.
- BENEŠ, Jiří, et al. *Infekční lékařství*. 1. vydání. Galén, 2009. 651 s. ISBN 978-80-7262-644-1.
-

Category:Microbiology



Colistin