In vitro investigations on the mode of action of the hydroxypyridone antimycotics rilopirox and piroctone on *Candida albicans*.

Sigle HC, Schäfer-Korting M, Korting HC, Hube B, Niewerth M (2006) *In vitro* investigations on the mode of action of the hydroxypyridone antimycotics rilopirox and piroctone on *Candida albicans*. *Mycoses* 49(3), 159-168.

Details

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Abstract

Rilopirox and piroctone belong to the class of hydroxypyridone antimycotics. This class is not related to other antimycotics. In contrast to azole antimycotics and polyene antimycotics the mode of action of hydroxypyridone antimycotics is not fully understood. Inhibition of cellular uptake of essential compounds as well as loss of other compounds seems to be only a secondary effect of a primary not known action of these drugs. The antifungal effect in vitro depends on the medium used. The hyphal induction of Candida albicans is inhibited by hydroxypyridone antimycotics, but this effect is compensated by iron ions. A damage of the cell membrane and a direct influence on adenosine triphosphate synthesis, respectively, do not seem to be part of the mode of action. But there are clear hints that reactive oxygen species (ROS) and available metabolic activity are important parts of the mode of action of the hydroxypyridone antimycotics rilopirox and piroctone.

Involved units

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