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Review article

Leishmania treatment and prevention: Natural and synthesized drugs

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ABSTRACT

Leishmaniasis affects over 150 million people all over the world, especially in subtropical regions. Currently used antileishmanial synthesized drugs are associated with some drawbacks such as resistance and cytotoxicity, which hamper the chances of treatment. Furthermore, effective leishmanial vaccines are not well developed. Promising chemotherapy, either from natural or synthetic compounds, was or still is the most promising treatment. This review focuses on recent findings in drugs used for the treatment of leishmaniasis including; chemical and natural antileishmanial moieties, different potential targets, as well as various trials of vaccination development. Special emphasis has been paid to the mechanisms of the drugs, their safety and where possible, the structure-activity relationship to enable guided future drug discovery.

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