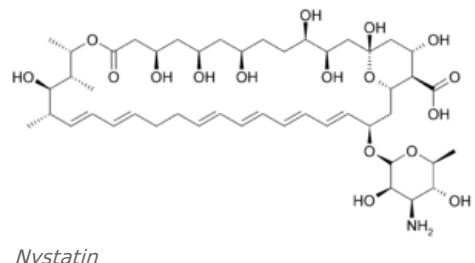


Nystatin

Nystatin (abbreviated NYS)[1] (<https://www.sukl.cz/modules/medication/search.php?data%5Bmaterial%5D=nystatin&data%5Bchbox%5D%5B%5D=marketability#data-listing>), original name *fungicidine*, is a polyene antifungal medication for topical use.



Application

Nystatin is a fungistatic to fungicidal antifungal medicine that inhibits the growth of the genus *Candida*, *Rhodotorula*, *Torulopsis* and *Trichosporon* and micromycetes of the genus *Aspergillus*. It is suitable for the treatment of superficial candidiasis of the skin and mucous membranes, including the intestinal mucosa (when administered orally), oral candidiasis and vaginal candidiasis. In topical and oral administration, it is **not absorbed into the systemic circulation**; and because of that, it can also be used during pregnancy. Not suitable for the treatment of endomycosis.

Mechanism of action

Like other polyene antifungals, nystatin acts by binding to ergosterol. Ergosterol is one of the basic components of the plasmatic membrane of microscopic fungi. The binding of the antifungal medicine causes the formation of pores in the membrane through which potassium ions escape from the cell. This ultimately leads to death of the cell. Ergosterol is found only in microscopic fungi and protozoa, mammalian cells do not contain it; nystatin is therefore relatively non-toxic to humans.^[1]

Agents

Nystatin-containing agents are available in both HVLP and IPLP forms. HVLP products available in our country include ointments (eg Fungicidin, Drugs from ZENTIVA) and vaginal globules (in combination with other products); Agents in the form of oral suspensions, gels and tablets (eg Mycostatin) are also produced abroad.

History

Nystatin was discovered by bacteriologist Elizabeth Hazen and chemist Rachel Brown in 1950, who isolated it from *Streptomyces noursei* cultures. The original name *fungicidine* was later changed to *nystatin* by **New York State** in the Health Department Laboratory where the discovery took place.^[2]

References

Related links

- Antifungals
- Mycosis
- Dermatomycoses

External links

- [wikipedia:en:Nystatin](https://en.wikipedia.org/wiki/Nystatin)

References

1. Drugs.com. *Nystatin Side Effects* [online]. [cit. 2015-11-03]. <<https://www.drugs.com/sfx/nystatin-side-effects.html>>.
2. HAZEN, Elizabeth Lee a Rachel Fuller BROWN. Two antifungal agents produced by a soil actinomycete. *Science* [online]. 1950, vol. 112, no. 2911, s. 423, dostupné také z <<https://www.ncbi.nlm.nih.gov/pubmed/14781786>>. ISSN 0036-8075.

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Recommended reading

- SKLENÁŘ, Zbyněk and Jan HAŠEK. New active substances in the master formula I - Nystatin. *Practical pharmacy* [online] . 2010, vol. 6, no. 1, pp. 30–35, also available from < http://www.praktickelekarenstvi.cz/artkey/lek-201001-0007_Nove_lecive_latky_v_magistraliter_recepture_I_8211_Nystatin.php >. ISSN 1803-5329.
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