



Chelating agents as tools for the treatment of metal overload.

Autorzy

Elżbieta Gumienna-Kontecka

Valeria Marina Nurchi

Agnieszka Szebesczyk

Paulina Bilska

Karolina Krzywoszyńska

Henryk Kozłowski

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Streszczenie

Metal ions poisoning can result from environmental factors, intentional action, or disruption of homeostasis. Although the origin of toxicity may be different, the treatment is similar. Chelation therapy aims to remove the excess of metal ions from tissues to stop further damage of cells. For almost every metal ion, molecules that are able to bind it and remove from the human body are known. Over the years some new chelating agents were discovered and introduced into clinical treatment. In this paper we have focused on typical chelators for metal ions, both essential and toxic for humans. The treatment of poisoning caused by essential metal ions is hard due to the risk of removing them from the biologically relevant molecules (e.g. enzymes). Acute metal ions poisoning is rather rare, so the development of chelators for such cases are historical, but prolonged toxicity of, especially, essential metal ions is extensively studied.

Słowa kluczowe

chelation therapy, metal toxicity, bioinorganic chemistry,
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