"…I'll tell you all my ideas about Looking Glass House. First, there's the room you can see through the glass – that's just the same as our drawing room, only the thing go other way… Well then, the books are something like our books, only the words go the wrong way; …I wonder if they'd give you milk in there? Perhaps Looking-Glass milk isn't good to drink…"

"Through the Looking Glass"
Lewis Carroll (1832–1898)

REVIEW

INFLUENCE OF THE ABSOLUTE CONFIGURATION ON PHARMACOLOGICAL ACTIVITY OF ANTIHYPERTENSIVE AND ANTIARRHYTHMIC DRUGS

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Chirality is a fundamental property of biological systems and reflects the underlying asymmetry of matter. Interactions of drugs with receptors, enzymes or binding sites have long been known to be stereoselective, and it is increasingly recognized that both pharmacodynamic and pharmacokinetic events contribute to the overall clinically observed stereoselectivity.

The pharmacological activity may reside only in one enantiomer, while the second one may be inactive or have desirable or undesirable activity. Two isomers may be nearly identical both in qualitative and quantitative aspects of pharmacological activity. The activity of particular enantiomers may differ only at the quantitative level. It is also possible that a particular enantiomer displays qualitatively different mode of action than the second one.

This review describes the influence of the absolute configuration on pharmacological activity of the selected currently used or being under investigation drugs acting on cardiovascular system, especially as the antihypertensive and antiarrhythmic agents.

Key words: chirality, absolute configuration, antihypertensive drugs, antiarrhythmic agents

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