



Antiarrhythmic and hypotensive activities of 1-[2-hydroxy-3-(4-phenyl-1-piperazinyl)propyl]- pyrrolidin-2-one (MG-1(R,S)) and its enantiomers

Jacek Sapa, Barbara Filipek, Leszek Nowiński

Department of Pharmacodynamics, Laboratory of Pharmacological Screening, Faculty of Pharmacy, Medical College, Jagiellonian University, Medyczna 9, PL 30-688 Kraków, Poland

Correspondence: Jacek Sapa, e-mail: jaceksapa@interia.pl

Abstract:

The compound MG-1(R,S), (1-[2-hydroxy-3(4-phenyl-1-piperazinyl)propyl]-pyrrolidin-2-one, and its enantiomers were tested for electrocardiographic, antiarrhythmic and hypotensive activities. The racemic mixture (MG-1(R,S)) and its S-enantiomer significantly decreased systolic and diastolic blood pressure and possessed antiarrhythmic activity. The S-enantiomer displayed the greatest effect. The R-enantiomer did not show antiarrhythmic or hypotensive activity. The results suggest that the antiarrhythmic and hypotensive effects of these compounds are related to their adrenergic properties.

Key words:

phenylpiperazine-pyrrolidine-2-one, antiarrhythmic, α -adrenoceptor blocking activity, enantiomer
