Erratum to: Effects of a Selective Sigma 1 Antagonist Compound on Inflammatory Pain

Carmela Parenti,¹ Agostino Marrazzo,² Giuseppina Aricò,² Giuseppina Cantarella,³
Orazio Prezzavento,² Simone Ronsisvalle,^{2,4} Giovanna Maria Scoto,¹ and Giuseppe Ronsisvalle²

Erratum to: Inflammation
DOI 10.1007/s10753-013-9736-6

The original version of this article unfortunately contained mistakes. The percentage value of inhibition induced by MRV3 was incorrect (61.53 % instead of 37.82 %). The correct value now appears below.

Abstract

The compound (–)-MRV3 [(–)-Methyl (1S,2R)-2-[(4-Hydroxy-4-phenylpiperidin-1-yl)-methyl]-1-phenylcyclopropanecarboxylate] has an assessed antagonist sigma 1 (σ_1) profile and showed improved σ_1/σ_2 selectivity with respect to the parent compound (+)-MR200. The σ_1 receptor is reported to play a role in both central sensitization and pain hypersensitivity, which suggests a potential use of σ_1 antagonists for

the treatment of persistent pain conditions. The present study was performed to assess the effects of the selective σ_1 antagonist (–)-MRV3, in carrageenan-induced inflammatory hyperalgesia, allodynia and edema. Mechanical allodynia with a series of calibrated von Frey's filaments, thermal hyperalgesia with planar test and edema evaluation with a plethysmometer were measured. Subcutaneous (s.c.) treatment with (–)-MRV3 (1, 2, 3, 4, 5 mg/kg) dose-dependently reduced allodynia and hyperalgesia induced by intraplantar carrageenan. Furthermore, treatment with (–)-MRV3 (3 mg/kg s.c.) also inhibited paw edema with a significant inhibition of 61.53 % 3 h after carrageenan treatment. These results provide a strong basis for the use of σ_1 receptor antagonists in the treatment of inflammatory pain.

The online version of the original article can be found at <http://dx.doi.org/10.1007/s10753-013-9736-6>.

¹ Department of Drug Sciences, Pharmacology and Toxicology Section, University of Catania, Viale A. Doria 6, 95125 Catania, Italy

² Department of Drug Sciences, Medicinal Chemistry Section, University of Catania, Viale A. Doria 6, 95125 Catania, Italy

³ Department of Clinical and Molecular Biomedicine, Pharmacology and Biochemistry Section, University of Catania, Viale A. Doria 6, 95125 Catania, Italy

⁴ To whom correspondence should be addressed at Department of Drug Sciences, Medicinal Chemistry Section, University of Catania, Viale A. Doria 6, 95125 Catania, Italy. E-mail: s.ronsisvalle@unict.it