



In Vitro Spermatostatic Activity of Mulinane- and Azorellane-type Diterpenes on Human Spermatozoa

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SUMMARY. Mulinenic acid (**1**), mulinolic acid (**2**) and azorellan-17,13-(β)olide (**3**) isolated from *Mulinum spinosum* and *Azorella trifurcata* have been evaluated for their spermatostatic activity on human spermatozoa. *In vitro* sperm motility, viability and recovery of the motility were assessed. Compounds **2** and **3** showed significant spermatostatic properties. Reversible effects for **2** (% Motile Cells = 32 ± 3 , % Living Cells = 84 ± 4) and irreversible effects for **3** (% Motile Cells = 34 ± 4 , % Living Cells = 82 ± 4) were observed. Compound **1** showed moderate bioactivity. Compounds **2-3** presented remarkable effects on human sperm motility and we were encouraged to consider their application as a potential non hormonal male contraceptive agent.

KEY WORDS: Azorellan-17,13-(β)olide, Mulinenic acid, Mulinolic acid, Spermatostatic bioactivity, Sperm viability, Sperm motility.

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