J Develop Drugs Res 2017, 6:1 (Suppl)
http://dx.doi.org/10.4172/2329-6631-C1-024

What is old is new again- Ketamine

Randall J Bjork
Lotus Health Centennial, USA

Ketamine is a non-competitive glutamate N-methyl-D-aspartate receptor antagonist and is commonly used as an anesthetic agent. The use of ketamine for treatment-resistant depression, post-traumatic stress disorder, chronic anxiety and pain syndromes, however, is becoming more widespread as reports are appearing about the astonishing efficacy of a single infusion. A week or more of improvement of symptoms will be seen in the majority of patients with treatment-resistant depression, for example, after only a single infusion. 80% of patients may have weeks to months of benefit after 4-6 infusions. Although hallucinogenic in higher doses, the therapeutic dosage (0.5 mg/kg intravenously) is very safe and well-tolerated, with expected dissociative sedation, drowsiness, unsteadiness and dysmnesia, which are transient and managed by expectant observation. Refinement of this therapy may yield a new generation of very specific, rapidly acting antidepressants.

rjbtopdown@aol.com

The influence of inhomogeneity of calcium alginate hydrogels on their controlled release properties

Stojan Rendevski
HCT-Ras al Khaimah Men's Campus, UAE

The controlled release properties of calcium alginate hydrogels are predetermined mainly by two factors: the monomer composition of the alginate (mannuronic-to-guluronic ratio) and the technology of gel preparation that lead to more or less homogenous hydrogels. The inhomogeneity of the calcium alginate hydrogels has been investigated in respect to the size and amount of calcium alginate micro-gel structure existing in the sodium alginate gelling solution. Dynamic light scattering measurements and scanning electron microscopy has been utilized for characterization of the hydrogels. The controlled release properties have been found dependent on the size and amount of calcium alginate micro-gels in respect to changed lag-time, intensity of the burst effect, release rate and release efficiency. The findings also suggest that the mixing technique plays an important factor in the preparation of homogen calcium alginate core hydrogels with or without a shell layer.

srendevski@hct.ac.ae