OMICS Group Conferences
Accelerating Scientific Discovery

2nd International Conference on
Medicinal Chemistry & Computer Aided Drug Designing

October 15-17, 2013 Hampton Inn Tropicana, Las Vegas, NV, USA

Anti-inflammatory effects of α-aminoarylpropionic acid derivatives

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Derivatives of aryl propionic acid are one of the promising compounds for creation of anti-inflammatory drugs. In our previous study new structures of non protein amino acids - L-β-(N-benzylamino) alanine (BAA) and L-α-methylphenylalanine (MPA) were synthesizes and investigated for anti-inflammatory activity. It was demonstrated the ability of this compound to decrease the xylole induced ear inflammation and their antinociceptive activity in rats. In view of these, it was investigated changes of the PgE2 formation in blood under the influence of mentioned structures. Experiments have been performed in white male inbred rats weighting160-180 g. Inflammation was induced by subcutaneously injection of 5% formaline solution. PgE2 level in blood serum and plasma was measured using EIA kit-Monoclonal, according to the protocol. BAA and MPA was injected rats i/p in 10 mg/kg doses. In all studies significance was set at $P<0.05$. Experimental data showed that under 5% formalin induced inflammation, PgE2 level was essentially increased up to three times as compared with control value (intact rats). BAA and MPA i/p injection significantly decreased the PgE2 level elevation both in blood plasma and serum compare with inflammatory condition. Obtained data indicated that the tested compounds could be developed as effective anti-inflammatory drugs.

Biography

Zhamharyan A.G. has completed her Ph.D. at the age of 29 years from Yerevan State Medical University and now preparing postdoctoral studies from the same university. She is the head of Department of Pharmacy in Yerevan State Medical University. She has published more than 25 papers in reputed journals connecting to study of the natural and chemical compounds anti-inflammatory and anti-nociceptive activities.

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