Synthesis, Characterization and Biological Evaluation of Cyclic Peptides: Viscumamide, Yunnanin A and Evolidine

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Three biologically active cyclic peptides, viscumamide, yunnanin A and evolidine were synthesized and the structures were established on the basis of analytical, IR, NMR and mass spectral data. These newly synthesized cyclic peptides were evaluated for antimicrobial and pharmacological activities. Evolidine showed better growth inhibition against bacterial strains than yunnanin A and viscumamide. The anti-inflammatory activity of viscumamide is moderate and the remaining two cyclic peptides are found to be less active. But, all the three cyclic peptides showed weak anthelmintic activity.

Key words: Cyclic Peptides, Viscumamide, Yunnanin A, Evolidine, Antimicrobial Activity