Sree Balaji Medical College & Hospital

Bharath Institute of Higher Education & Research

Virtual International Conference on Hypertension

HYPERPIESIA - 2021

27th November, 2021

Organised by

Department of Pharmacology

Sree Balaji Medical College & Hospital

Chromepet, Chennai - 600 044.

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CONFERENCE PROCEEDINGS

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class were also predicted using Bioprep web server. Toxicity prediction of the protein was carried out using Clantox web server. Docking studies were carried out as follow. Preparation of Glycopeptide (Kunitz Soybean Trypsin Inhibitor) and its target protein were done using Schrodinger protein preparation wizard. Protein preparation was done for the selected targets, (EGFR, RAS, RAF, MEK, MAPK, MYC, PI3K, AKT, MTOR, ERK, JNK, p38). Protein sequences were downloaded from Uniprot web server and subjected to protein blast. Protein modelling was done, with sequence of high similarity index and the models were evaluated using online servers such as ERRAT, Procheck for its integrity. Protein modelling of different conforms were carried out using Swiss model and conformers showing high Ramachandran plot value and low clash score were selected. Generated protein models were utilized for the process of docking. Automated docking study was done with Pydock web server software. Binding affinity was analysed by evaluating the binding energy and bond formation. **Results & Discussion:** Kunitz Soybean Trypsin Inhibitor showed better binding energy and best binding posture for all 12 targets involved in MAPK- PI3K signaling cascade proteins.It has moderate solubility, Nil sub cellular sedimentation, non-toxic, non–BBB penetrant with higher denaturation temperature. Biological activity (Pass Online showed more than 100 Anti-oxidative and Anti-Inflammatory activity for Kunitz Soybean Trypsin Inhibitor) and target predictions also proved high bioactive function of Kunitz Soybean Trypsin Inhibitor. ***Conclusion****:*Insilico studies ,carried out to analyse the physical-chemical, binding energy and toxicity nature of Kunitz Soybean Trypsin Inhibitor proved out that the biomolecule can be considered as a potent candidate for drug development especially as an Anti-cancer agent(Colorectal carcinoma), due to its high bioactivity and low toxic nature.

Novel Approach in the Management of Renal artery Stenosis

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Renal artery stenosis is one the major cause of renovascular hypertension that occurs due to the occlusion of unilateral /bilateral renal arteries. Among total percentage of hypertensives, renal artery stenosis serves as the cause of hypertension in 1-7 % of population world wide. The main objective of this study is to explore the recent advances in the management of renal artery stenosis and to emphasize the significance of medical management in the above mentioned condition. Medical management are therefore opted incase of mild cases (unilateral stenosis < 80 %) and surgical interventions are preferred in Percutaneous transluminal renal angioplasty +/- stenting failure / bilateral severe stenosis.

Keywords*: Renal artery stenosis, recent advances, medical management , angioplasty*
