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

Synthesis, characterization and investigation of biological and cytotoxic activity of chelated compounds of copper, cobalt and nickel with N, S donor

Shashikant H Gaikwad
Shri Shivaji Mahavidyalaya, India

The new schiff base ligands 4-(4'-nitrobenzylideneimino)-3-methyl -5-mercapto-1,2,4-triazole and their Co(II), Ni(II) and Cu(II) metal complexes were synthesized and characterized by elemental, various spectroscopic (UV-vis., IR) thermal and magnetic moment measurements. The ligand was synthesized by condensation of 4-amino-5-mercapto-3-methyl-1,2,4-triazole with 2/3/4-nitrobenzaldehyde. On the basis of electronic spectral data and magnetic susceptibility measurements the octahedral geometry has been proposed for all the Co(II) and Ni(II) complexes and square planer for Cu(II) complexes. The ligand and metal complexes have been screened for their antimicrobial activities against bacteria (*Staphylococcus aureus, Pseudomonas aeruginosa*) and fungi (*Aspergillus niger and Candida albicans*). Further the material was also screened for anticancer activity on human cancer cell lines such as breast (MCF7), lung (NCI-H226), prostate (PC-3) and ovary (OVCAR-3) by using sulforhodamine-B(SRB).

rasayanshg@gmail.com

Formulation and characterization of polysorbate 80 coated chitosan nanoparticles of serratiopeptidase

Deep Shikha Sharma
Lovely Professional University, India

Nanoparticles act as a promising system for targeted delivery of drugs and as an effective route of drug administration. In this study, polysorbate 80 coated nanoparticles of serratiopeptidase were formulated and aimed for the treatment of blood clots in brain. Serratiopeptidase exerts effective activity against blood clotting and has ability to dissolve nonliving tissues, blood clots, cysts and atherosclerotic clots. Different nanoparticle formulations of serratiopeptidase were prepared with different concentrations of chitosan and tripolyphosphate using ionic gelation method. The nanoparticles were coated using polysorbate 80 and were characterized and evaluated for different parameters such as particle size, entrapment efficiency, zeta potential and transmission electron microscopy. The *in vitro* drug release of prepared nanoparticles was studied in phosphate buffer (pH 7.4). The results indicated that the developed nanoparticle formulation could be established as a promising carrier for active targeting into brain to dissolve blood clots.

Deep.20137@lpu.co.in