Synthesis of Cobalt Salophen Complexes and Study of Its Anticancer Activity

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The chemistry of salen and salophen Schiff bases, driven from the condensation reaction of ethylenediamine and 1,2-diaminobenzene with salicylaldehyde, respectively, is an area of increasing interest. Metal complexes with these bases have numerous applications, such as, in the treatment of cancer, as antibactericide agents, as antivirus agents, as fungicide agents and for other biological properties.

In this work we have synthesized cobalt complexes with salen and salophen and characterized them with IR, UV/Vis and conductance measurements. Cancer cells 742 treatments with these complexes via MTT showed their anticancer activity against the colonized cancer cells. In this study we observed a reduction in cancer cells growing near to 80%. The microscopic images that we prepared from the cells showed that the cells were dispersed as granules concluding that they were dead. Increasing of the concentration of complexes causes an increase in their anticancer activities.

REFERENCES