



Schiff base complexes, cancer cell lines, and anticancer evaluation: a review

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ABSTRACT

This review examines the importance of Schiff base ligands and their metal complexes against cancer. The chemotherapeutic action of certain metal complexes especially cisplatin are currently used for treatment of cancer. The main limitation of such cancer related drugs is high toxicity and side effects. The development of new anticancer agents against several cell lines is described in this article. Based on reports from the last decade, we are still awaiting an efficient anticancer candidate.

Possible Anticancer Mechanism of Transition Metal Complexes Inhibition of DNA Synthesis Induction of Apoptosis/ Necrosis/Autophagy ER stress Anti-angiogenic activity

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1. Introduction

In coordination chemistry, transition metal chelates of Schiff base ligands are of interest. Due to their sensitivity, synthetic flexibility, and selectivity for diverse metal ions such metal complexes have received attention. Transition metal complexes have proven to be advantageous over organic based drugs as they do not develop resistance as developed by conventional medicines. Also diverse biological actions of these complexes have been explored. Their significance in cancer detection, tumor treatment,