

SYNTHESIS AND CHARACTERIZATION OF AN INTRAVAGINAL POLYMERIC FILM FOR CONTROL RELEASE OF CISPLATIN, RETINOL AND ENDOSTATIN

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Cervical cancer is one of the main causes of death among women worldwide, it represents 4% of cancer diagnosis, with 500,000 new cases per year. Cervical cancer treatment, as any malignant tumor, requires an alkylating antineoplastic agent capable of killing the carcinoma and any recurrence chances; towards to achieve this, high doses of chemotherapy are required, which also affects the physical and psychological health of the patients. In order to prevent this unwanted side effects, in this project a hydroxypropyl methylcellulose and polyethylene glycol film is proposed, which can be compatible with cisplatin, an alkylating agent, retinol, a therapeutic drug and endostatin an angiogenesis inhibitor. The film with 0.3 grams of hydroxypropyl methylcellulose showed the best contact angle for its adherence to the uterine wall; also, the pores diameter between 700 to 1000 nm can accommodate cisplatin molecules by their own or within a system like nanoparticles. The film has the organic groups of a biocompatible material and thermal stability, main features needed for the application of this system.

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