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شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم



شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

قسم

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٢٥

EXPERIMENTAL CLINICOPATHOLOGICAL STUDIES ON ANTICARCINOGENIC DRUGS IN MICE

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رَبَّنَا لَا تَزُغْ قُلُوبَنَا بَعْدَ إِذْ هَدَيْتَنَا
وَهَبْ لَنَا مِنْ لَدُنْكَ رَحْمَةً إِنَّكَ أَنْتَ
الْكَوْمُاطُ

صَدَقَ اللهُ الْعَظِيمُ

(آل عمران ، آية : ٨)

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ARABIC SUMMARY

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INTRODUCTION

INTRODUCTION



The old experimental studies concluded that immunological mechanisms play a role in host resistance against neoplasms. **Thomas (1959)** followed by **Burnet (1967, 1969 and 1970)** have hypothesized that hypersensitivity and homograft rejection may be the primary mechanism for natural defence against neoplasia. They believed that, there is a constant immunological surveillance against natural somatic mutation.

Spontaneous regression of carcinomas of the bladder, prostate, kidneys and lung had been observed by **Everson (1964)** and remissions from carcinoma of the breast, prostate, or lungs after surgery and radiation may last from 5 to 20 years followed by recurrence due to failure of the immunological mechanisms of the body to overcome the metastatizing cells.

Theilen and Madewell (1979) stated that cancer or potential cancer probably arises in everyone every day in the form of mutant cells, but they are promptly and effectively be eliminated by lymphocytes which recognize the foreignnes of the mutants and act accordingly. When the policing cells are deffective, however, such mutants may gain a foothold. Furthermore, a higher incidence of lymphomas occurs in persons with immunological deficiencies such as acquired hypogammaglobulinemia or after exposure to immunosuppressive drugs (**Doak et al., 1968**). Animals which respond poorly to stimulation of the reticuloendothelial system are more prone to

develop spontaneous tumor as well as to be respective artificially produced tumors.

BCG is one of the most potent stimulators of host's immunological mechanisms through the (RES) stimulation and has a specific and non-specific actions (Mackanness, 1968 and Rosenthal 1980).

The contributions of anticancer chemotherapy to the cancer problems are two folds, first: It has been proved in both laboratory animals and man that patients with overt metastatic disease can be cured, and the second, a strategy for control of occult metastasis has been established. Cancer chemotherapy is really an ancient art as early as the days of the ancient Greek's. Men have been treated tumors by direct application of mixtures containing caustics, acids, alkaloids such as belladonna, a conite and hemlock, metals and their salts, and compounds of cupper, mercury, antimony, lead, zinc and arsenic (Theilen and Madewel, 1979).

The cytotoxic drugs induced harmful effect along with the treatment effect. The modern imuno-therapy methods are highly complicated in preparation and application and mostly expensive. So it is an important aim to search about natural immunostimulants.

Nigella sativa was proven previously by many authors, that has immunostimulant effect and anticancer effect. (El-Kadi et al. 1987 and Salomi et al. 1991).

The present study was designed in order to answer the following questions:

- 1- Is the BCG has immunostimulant effect to a degree of anticancer role?
- 2- Is the *Nigella sativa* (NS) has immunostimulant effect to a degree of an anticancer role?
- 3- Is BCG and NS have synergistic effect against neoplasm (Ehrlich tumor cells)?



REVIEW OF LITERATURE