بسم الله الرحمن الرحيم

شبكة المعلومـــــات الجامعية

التوثيق الالكتروني والميكروفيلم

شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

﴿ قـــسـم ﴾

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأفلام قد اعدت دون آية تغيرات

يجب أن

تحفظ هذه الأفلام بعيداً عن الغبار

في درجة حرارة من 15 – 20 مئوية ورطوبة نسبية من 20-40 %

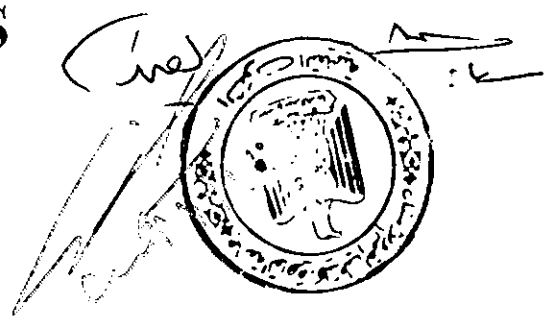
To be kept away from dust in dry cool place of
15 – 25c and relative humidity 20-40 %

بعض الوثائق الأصلية تالفة

بالرسالة صفحات

لم ترد بالأصـــل

ASSESSMENT OF P53 PROTEIN EXPRESSION IN HUMAN SALIVARY GLANDS NEOPLASMS



Thesis

Submitted For Partial Fulfillment of the Requirement for the Degree of Doctor of Philosophy in Basic Dental Science

(ORAL PATHOLOGY)

By

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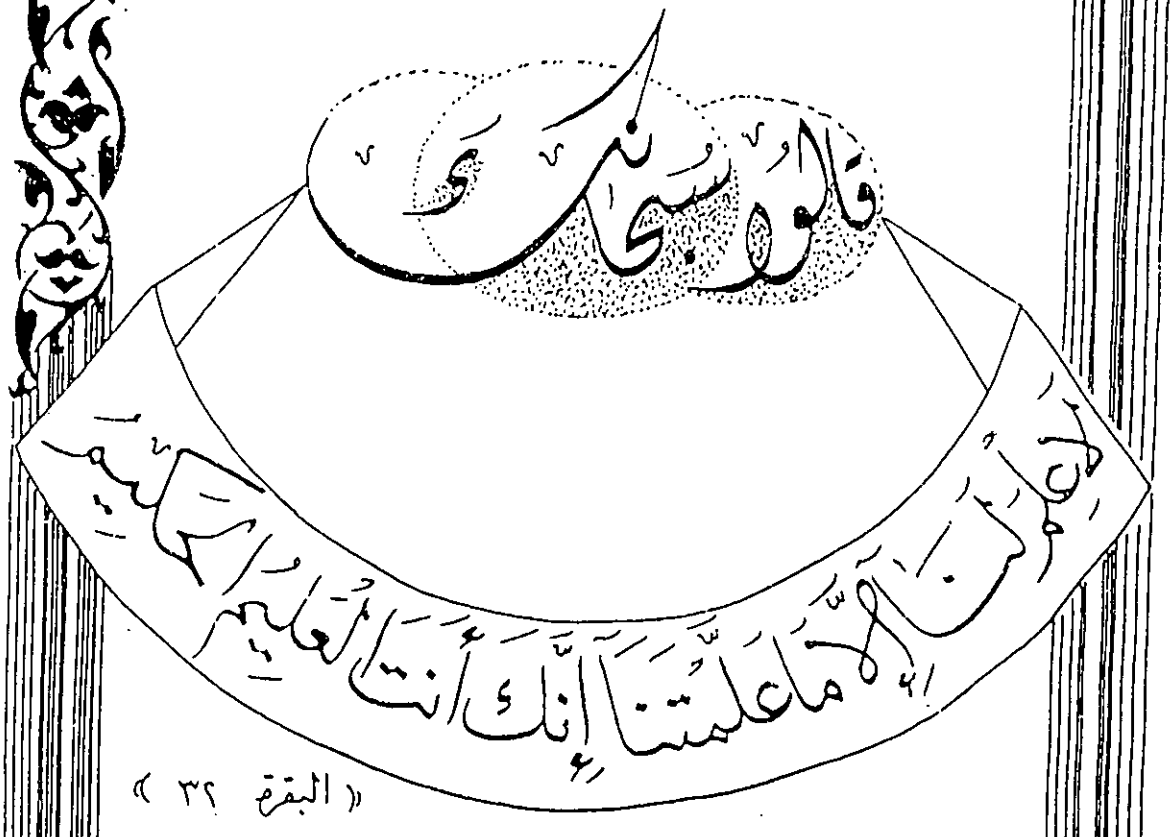

« البقرة ٣٢ »

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INTRODUCTION

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The word "CANCER" is used to describe a group of heterogenous pathological states in which cells multiply abnormally and invade surrounding tissues. There are hundreds of different kinds of cancers, at least one originating from nearly every cell type in mammalian organism. One long-standing hope has been that the same biochemical pathway for controlling growth is disrupted in many different kinds of cancers, despite their biologic heterogeneity, this would provide a common denominator for understanding, treating and preventing these diseases. The pathway involving P53 fulfills this hope, as alterations of this tumor suppressor gene appear to be involved, directly or indirectly, in the majority of human malignancies. This has stimulated an intense search for the biochemical functions of P53 and the effects of mutation on these properties ***(Vogelstein and Kinzler, 1992)***.

Of human cancer 50 to 80% express mutant P53 including bone, bladder, brain, breast, esophagus, stomach, liver, lung, lymphoid system, ovary and prostate cancer making P53 the most frequent mutated gene in human cancer and suggesting that there is some form of selection for the expression of mutant P53 protein in cancer cells. ***(Yarnold et al., 1996)***.

Tumors of the major and minor salivary glands constitute a heterogenous group of neoplasms, which present difficulties in their

diagnostic evaluation. The prognosis of salivary gland tumors cannot be easily predicted since the histologic features of these tumors are not necessarily correlated to their biologic behaviour. Recently, the immunohistochemical studies have been used as a supplementary method for more accurate histoprognostic evaluation of salivary gland tumors ***(Bang et al., 1994)***.

Much attention has recently focused on P53, which is an oncosuppressor gene located on human chromosome, 17 P. 13.1 ***(Isobe et al., 1986)***, encodes for a nuclear phosphoprotein, the wild type variety has an inhibitory effect on cell proliferation and transformation ***(Finlay et al., 1989)***.

The biological activity of P53 indicates that the protein is involved in gene transcription, DNA synthesis and repair, genomic instability and programmed cell death ***(Hollstein et al., 1991)***.

P53 protein alterations due to missense mutations and loss of P53 protein by non-sense or frame shift mutations provide a selective advantage for clonal expansion of preneoplastic and neoplastic cells ***(Battifora, 1994)***.

Normal wild type P53 protein is unstable with a half-life of only 20-30 minutes in most cells ***(Barnes et al., 1993)***. While the mutant P53 have much longer half-life 4-8 hours with resultant higher concentrations in cancer cells ***(Chang et al., 1993a)***. Therefore, a detectable protein usually means mutations.

Immunohistochemistry (IHC) provides a useful tool for detection of mutant P53 protein. It is an easy method, quick with reliable results. It also correlates oncogene expression with morphologic criteria of cells ***(Mokhtar, 1998)***.

So immunohistochemical detection of P53 protein may be of potential diagnostic significance and can be used as a tumor marker including those of the salivary glands. ***(Cohen and Derose, 1994)***.