بسم الله الرحمن الرحيم

شبكة المعلومـــــات الجامعية

التوثيق الالكتروني والميكروفيلم

شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

﴿ قـــســـم ﴾

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

PROLIFERATING CELL NUCLEAR ANTIGEN IN HEPATOCELLULAR CARCINOMA AND SOME ASSOCIATED LIVER DISEASES

Thesis
Submitted for Partial Fulfilment of the Master Degree in Pathology

By

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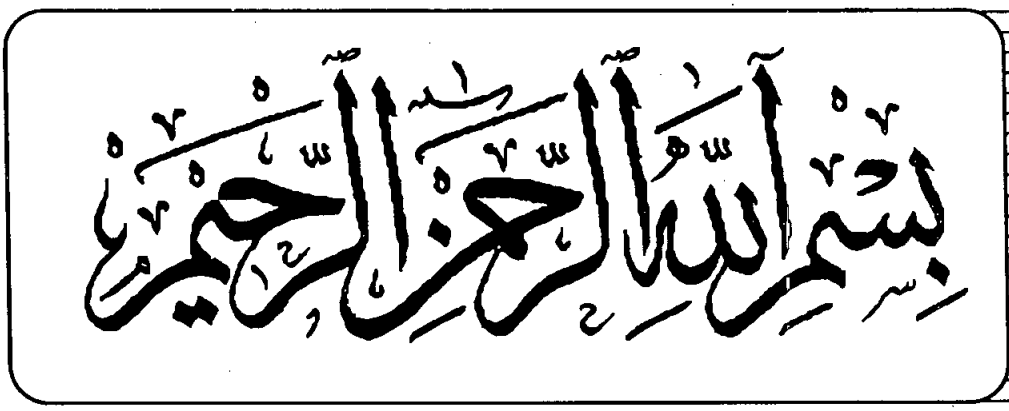
بسم الله الرحمن الرحيم

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Hepatocellular carcinoma is one of the commonest cancers in man. It accounts for 85% of primary malignant tumours of the liver. Hepatocellular carcinoma shows marked geographic variation in incidence. In U.K., it's incidence is approximately 1-3/100000 of the population, whereas in some parts of Africa and South East Asia it rises to 10-15/100000. In all areas, 80-90% of cases occur in males. The tumour usually occurs on top of cirrhosis in 70-80% of cases. In cases without preexisting cirrhosis, the male : female ratio is 2:1 ***(MacSween and Whaley, 1992)***.

In low incidence areas, the tumour arises usually after the age of 50 and the proportion of cases of cirrhosis in which malignancy supervenes is low, varying from 5 to 15%. By contrast in high incidence areas the tumour arises in the 20-40 age group. In such areas there is much greater risk of tumours supervening in cirrhosis, some estimates being as high as 80% and the clinical features of the tumour and of cirrhosis often present simultaneously ***(MacSween and Whaley, 1992)***.

Several etiologic factors of hepatocellular carcinoma have been identified. The most common of them are Hepatitis B virus infection ***(Ruiz et al., 1992; Takano et al., 1995)***, Hepatitis C virus infection ***(Dhillon and Dusheiko, 1995)***, also cirrhosis is an important etiologic factor ***(Okuda, 1992)*** and aflatoxins, in particular aflatoxin B1 ***(Chen et al., 1992)***. This may explain in part the geographic variation in incidence in man. The non-neoplastic tissue may show variable degrees of chronic hepatitis B and/or C and cirrhosis (***Cotran et al., 1994).***

The outstanding histological features of liver-cell carcinoma is the resemblance of the tumour cells to normal hepatocytes and of their

arrangement to the trabeculae of normal liver. The cell plates, however, are for the most part, thicker and reticulin is often scanty or absent. Between the trabeculae, there is a sinusoidal network rather than a connective tissue stroma. The many variations in the arrangement of the tumour cells are described as microtrabecular, acinar, pseudoglandular, solid and macrotrabecular ***(Scheuer, 1992)***. A fibrolamellar variant, in which the fibrous tissue separates the tumour cells, occurs in non cirrhotic liver in young people ***(MacSween and Whaley, 1992)***. At the cellular level, variants include giant cell type often with multinucleated tumour cells, and clear cell type ***(Scheuer, 1992).***

Tumours are characterized by excessive cellular proliferation without commensurate cell loss, resulting in growth. Recently, detection of proliferating cell nuclear antigen (PCNA), has been used to study the proliferative fraction-the proportion of cells in the synthesis (S) phase of the cell cycle-of the tumours (***Underwood., 1992)***. PCNA is a 36-KD acidic nuclear protein, that is essential for DNA synthesis ***(Mathews et al., 1984)***. Eleven monoclonal antibodies have been generated to genetically engineered PCNA, one of these, designated PCIO, recognizes PCNA in formalin-fixed paraffin-embedded tissues ***(Woods et al., 1991)***. The PCNA immunostaining index correlates with other measures of cellular proliferation in normal and in some malignant neoplasms ***(Hall et al., 1990).***

In acute viral hepatitis and confluent necrosis, many small basophilic hepatocytes surrounding large clear hepatocytes are positively stained in the areas next to the confluent necrosis, while in acute viral hepatitis with spotty necrosis and in chronic hepatitis C virus infection, positively stained hepatocytes are located next to the necrotic foci. In cirrhosis, the number of positively stained hepatocytes vary greatly in