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ثبكة المعلومات الجامعية





### جامعة عين شمس

التوثيق الالكتروني والميكروفيلم



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ثبكة المعلومات الجامعية







## Immunohistochemical Study of the Intra-hepatic (CD 45RO) positive T-cells in Chronic Active Hepatitis and its Correlation with Stellate Cell Activation and Fibrogenesis.

Thesis submitted in partial fulfilment of the M.D degree in pathology.

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2001



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#### <u>ABSTRACT</u>

Chronic active hepatitis is a major health problem in Egypt . Males are more commonly affected than females . Grade II /III activity are the most prevalent among Egyptian patients . Cirrhosis was present in more than 24 % of the studied cases. A highly significant correlation exists between the grade of chronic hepatitis and the degree of CD 45 RO + ve immunostaining . Also the degree of stellate cell activation as detected by  $\alpha$  smooth muscle actin immunostaining ,correlates well with the degree of fibrosis and the stage of the disease confirming the hypothesis that the greater the degree of necroinflammatory changes , the greater the degree of stellate cell activation and the greater the degree of fibrosis and the stage of the disease

Key words: Chronic hepatitis, CD45RO, Stellate cells,  $\alpha$  smooth muscle actin.

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#### **Acknowledgement**

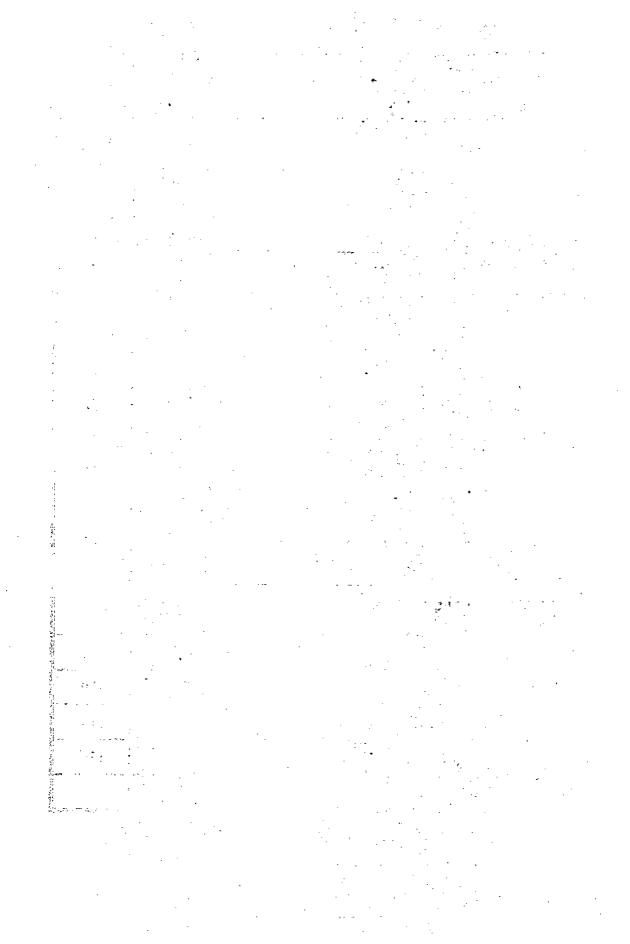
First of all thanks to God, the most merciful and beneficial.

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#### **Introduction**

Chronic active hepatitis is a chronic necro-inflammatory, primarily hepatocytic, lesion, with or without cirrhosis, characterized histologically by infiltration of mono- nuclear cells, pre-dominantly lymphocytes, in the portal tracts of the liver and peri-portal necrosis of hepatocytes – piece meal necrosis – (Bianchi and Gudat, 1994).

The histological appearance of the liver, including the mononuclear cellular infiltrate in the different types of chronic hepatitis is similar (Frazer et al., 1985).

Several studies have reported on the cell types infiltrating the liver in chronic active hepatitis. The usual finding have been that: T-lymphocytes pre-dominate in the cellular infiltrates with helper cells (CD4<sup>+</sup>) in excess in the cirrhotic scars and portal areas and T suppressor cytotoxic (CD8<sup>+</sup>) cells in excess in the lobular infiltrates (Bertoletti et al.,1997).

The adult liver is an organ without constitutive lymphoid components, Therefore, any intra-hepatic T cells, found in chronic hepatitis, should have migrated to the liver after infection and inflammation (Minutello et al., 1993).

T lymphocyte responses to viruses may have two opposing effects. On one hand, they may be critical for protection, either directly through CD8<sup>+</sup> T killer cells or indirectly through CD4<sup>+</sup> T cells which help B lymphocytes to produce neutralizing antibodies. On the other hand, T cells may be