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بعض الوثائق الأصلية تالفة

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بالرسالة صفحات لم ترد بالأصل

HISTOPATHOLOGICAL STUDY AND PHENOTYPIC EXPRESSION OF HODGKIN'S DISEASE USING BER-H2 (CD_{30}) MONOCLONAL ANTIBODY

Thesis
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By

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Chapter I

INTRODUCTION

Introduction

The term HodgKin's disease (HD) has been traditionally used for a type of malignant lymphoma in which Reed-Sternberg cells are present in a "characteristic background" of reactive inflammatory cells of various types, accompanied by fibrosis of a variable degree[1].

The finding of characteristic Reed-Sternberg cells in an appropriate histologic setting is essential for the diagnosis of HD. However, cells closely resembling Reed-Sternberg cells have been observed in conditions other than HD[2], and consequently pathologists sometimes find it difficult to distinguish diagnostic Reed-Sternberg cells from their non diagnostic equivalents.[3]

Recently, several immunohistochemical markers for Reed-Sternberg cells in paraffin sections have been raised.[4]

In the present study, one of these markers which is Ber-H_2 (CD_{30}) monoclonal antibody is used to detect its usefulness in the diagnosis and differential diagnosis of HD.

Chapter II

REVIEW OF LITERATURE

Review of the Literature

HD is a neoplasm that arises in the lymphoreticular system. Its neoplastic cells appear to undergo replication of DNA without cell division giving rise to the unique multinucleated cells[5] described by Sternberg and Reed. These characteristic giant cells seem to elicit a marked stromal reaction, which is possibly related to cytokine production[6,7], resulting in the histologic features that are included in the classification schemes of Jackson and Parker[8] or Lukes *et al.*[9,10]

Epidemiology

The overall incidence of HD is $3.0/10^5$ person/year in the United States of America and $2.4/10^5$ person/year in the United Kingdom[11,12]. In Alexandria University hospital, it constitutes approximately 7% of cases of malignancies.[13] Low rates of HD have been noted in China and other Asian populations, including Japan. The majority of studies have reported a bimodal age incidence curve for HD, the shape of which varies in different communities suggesting three epidemiological patterns of HD (I, II, III)[15].

In developing countries, the age incidence curve has two peaks, in childhood and in older age groups with a low incidence in the 3rd decade (pattern I). In developed countries low rates are observed in childhood with two pronounced peaks, one in young adults and the other in older adults (pattern III). Pattern type (II) is found in rural areas of developed countries, in central Europe and in southern United States. This age incidence pattern is thought to represent a transition state between the type I and III patterns consequent upon improved living conditions.

The age incidence curves for subtypes of HD are quite distinct[16]. Nodular sclerosis Hodgkin's disease has a unimodal age incidence curve with a peak in young adults, in contrast to the other subtypes that show a gradual increasing incidence with increasing age.

There is a male predominance of HD with a male to female ratio of 1.5:1[12]. The male excess is most pronounced in children and older adults, whereas female excess has been reported in the 15-24 year age group[16].

As regards racial distribution of HD, it was found that the pattern of HD in black Americans more closely resembles that of white Americans than that of black Africans. Therefore HD appears less dependent on race than on socioeconomic conditions[17].

Classification

For many years Jackson and Parker's[8] classification of HD into Paragranuloma (which constituted 10% of all cases and had the most favourable prognosis), granuloma (80% of cases), and sarcoma (10% of cases and had the least favourable prognosis) variants was widely used because of its reproducibility and clearcut prognostic implications; the main objection being that 80% of cases fell into the category of Hodgkin's granuloma. [Table I]

The concept of sclerosing type of HD with a very good prognosis was first introduced by Smetana and Cohen in 1956,[18] and hence HD was classified into Paragranuloma, nodular sclerosis, granuloma and sarcoma variants.

A major advance occured in 1966, when Lukes *et al*[10] proposed a new histologic classification that appeared to correlate well with clinical stage and aggressiveness of disease. In this classification, HD was divided into six categories including: lymphocytic and histiocytic: nodular and diffuse, nodular sclerosis, mixed cellularity, diffuse fibrosis and reticular types [Table I].

This scheme was later simplified in the Rye classification[19] in which HD is divided into four