HEPATITIS ARTHRITIS

THESIS

Submitted in Partial Fulfilment

of Master Degree

In

General Medicine

By

Mohamed Hassan Ibrahim

M.B.B.Ch.

SUPERVISORS

Prof. Dr.

FATHY TAMARA

Professor of General Medicine

Ain Shams University

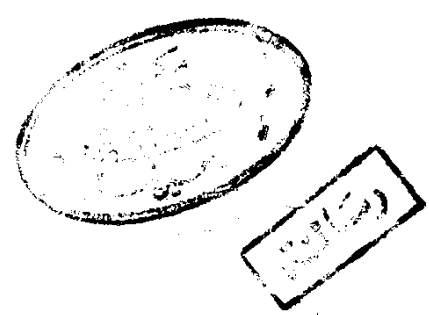
Prof. Dr.

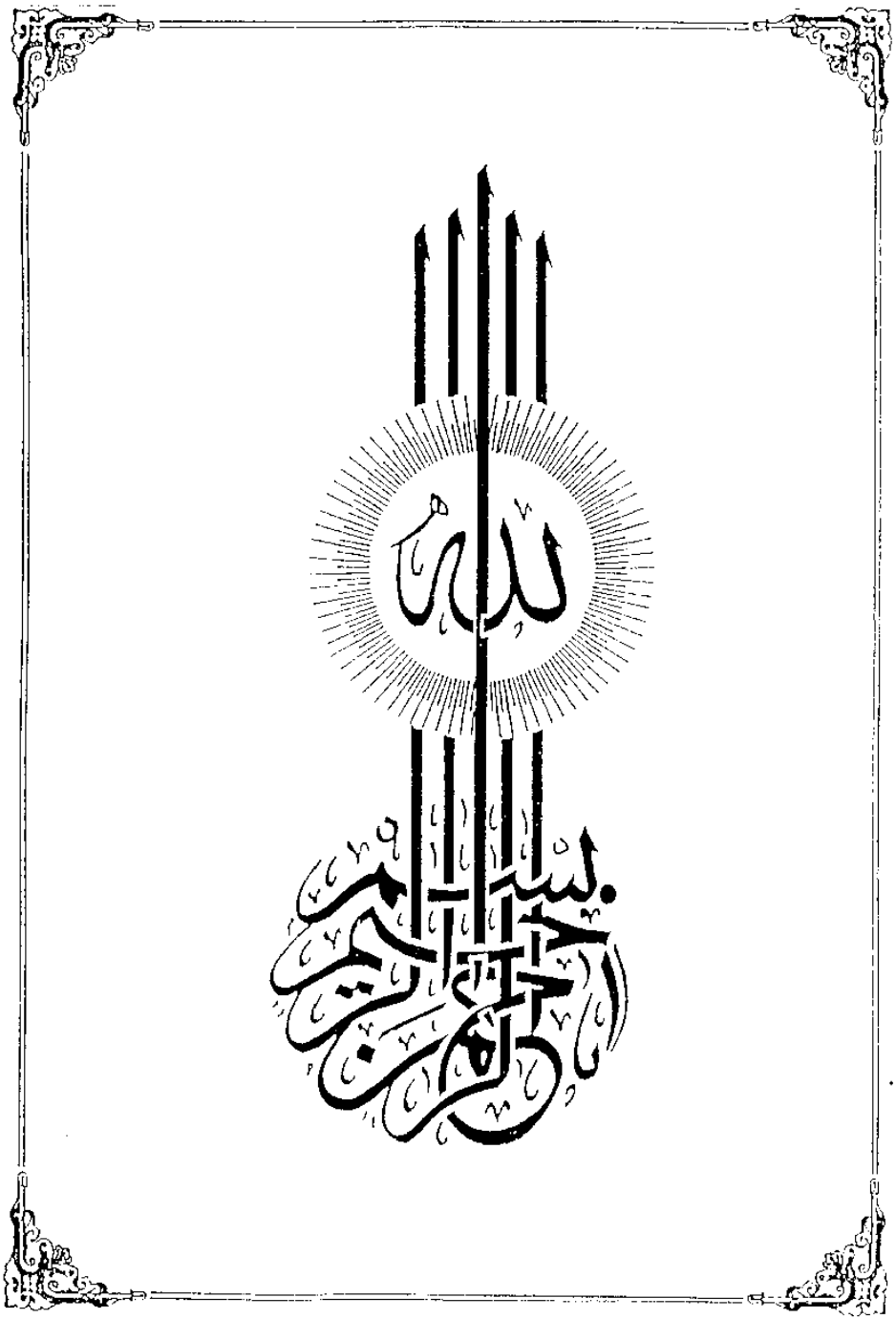
MOHAMED RAMADAN BADAR

Professor of General Medicine

Ain Shams University

1988





To the memory of a great,

honest and generous man: MY FATHER

ACKNOWLEDGMENTS

I would like to express may deepest gratitude and extreme appreciation to Prof. Dr. FATHY TAMARA, Professor of General Medicine, Ain Shams University, for his kind supervision, unfailing advice and constant encouragement. I will always remain greatly indepted for his indispensable help.

I also wish to express my sincere gratitude to Prof. Dr. M. RAMADAN BADAR, Professor of General Medicine, Ain Shams University, for his meticulous supervision, constructive criticism and advice. I will always remember his undivided attention and amazing patience throughout the preparation of this work.

CONTENTS

LIST OF ABBREVIATIONS

ANA	Antinuclear antibody
BHN	Bridging hepatic necrosis
CAH	Chronic active hepatitis
CLH	Chronic lobular hepatitis
CPH	Chronic persistent hepatitis
ESR	Erythrocyte sedimentation rate
HBV	Hepatitis B virus
HLA	Human leukocyte antigen
IHC	Idiopathic hemochromatosis
LMA	Liver membrane antigen
LSP	Liver specific protein
PBC	Primary biliary cirrhosis
R.W.	Rose-Waaler test
SGOT	Serum glutamic oxalo-acetic transaminase
SGPT	Serum glutamic pyruvic transaminase
SLE	Systemic lupus erythematosus

INTRODUCTION AND AIM OF THE WORK

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Chronic hepatitis is known to be associated with joint complaints (Whelton M.J. ,1970).

The first observation of a possible link between arthritis and liver disease was the recognition of an ameliorating effect of jaundice in patients with rheumatoid arthritis reported by Still G., in 1897, and Wishart J. ,in 1903. Recognition of the pattern of systemic involvement of a disease may be of considerable assistance in making a firm diagnosis and may help elucidate the cause of the disease where so little understanding of the basic pathophysiology exists (Mills P.R. and Sturrock R.D., 1982).

To the best of our knowledge the incidence of arthritis and/or arthralgia in chronic hepatitis was not studied in Egyptians.

The aim of this small work is to study the various joint and soft tissue complaints in this disease.

REVIEW OF LITERATURE

ARTHROPATHY IN LIVER DISEASES

CHAPTER I :

CHRONIC HEPATITIS

* AUTOIMMUNE CAH
* TYPE B CAH

CHRONIC HEPATITIS

Chronic hepatitis is defined as a diffuse chronic inflammation of the liver existing for at least 6 months (Sherlock S. ,1984).

The classification of chronic hepatitis continues to be based on morphological criteria (table 1), although clinical information is often essential for diagnosis (International Group, 1977).

Table 1 . Main morphological categories of chronic hepatitis

Morphological categories	Salient morphological features	Likelihood of direct progression to cirrhosis
CAH without BHN	Portal and periportal inflammation, periportal necrosis (piecemeal necrosis)	+ to + +
CAH with BHN	Severe periportal lesion, confluent necrosis forming bridges between adjacent centrilobular veins, between portal tracts, or between the two (Boyer and Klatskin ,1970).	+ + to + + +
CPH	Portal inflammation (De Groote et al. ,1968).	0
CLH	Predominantly intralobular inflammation and necrosis (Popper and Schaffner ,1971).	0

CHRONIC ACTIVE HEPATITIS

The term " active chronic hepatitis " was first introduced by Saint et al. ,in 1953, to describe a progressive inflammatory liver disease with a poor prognosis predominantly affecting young women. **Joske R. and King W.** ,in 1955, noted an association with LE cell phenomenon in about 10% of cases and this prompted **Mackay and associates**, in 1956, to introduce the term " lupoid hepatitis ". However, it is now clear that this pattern of liver inflammation does not occur in SLE **(Miller et al. ,1984).**

Tisdale W. ,in 1963, attributed such cases to viral infection and proposed the term " subacute hepatitis ".

International Group of chronic hepatitis ,in 1977, approved the term " chronic active hepatitis " while the terms 'subacute hepatitis' and 'lupoid hepatitis' are no longer acceptable.

Etiological classification:

CAH is a syndrome with multiple etiologies (table 2) and effort should be made to identify and possibly eliminate all etiological factors. Different etiologies may also be associated with variations in the clinical presentation, course, and prognosis of the disease and its response to treatment (Hazzi C. ,1986).

However, this discussion will be limited to subgroups of CAH in which arthralgia and/or arthritis is part of the clinical picture.

Table 2 . Etiology of chronic active hepatitis

1. Idiopathic CAH	a. Cryptogenic type
	b. Autoimmune type
2. Viral CAH	a. Type B
	b. Type non-A non-B
	c. Type D (delta)
3. Drug-induced CAH	Oxyphenisatin, methyldopa, isoniazid, nitrofurantoin, aspirin, phenylbutazone, sulfonamides, dantrolene, gold.
4. Metabolic causes	a. Wilson's disease
	b. Alpha 1 antitrypsin defeciency
5. Chronic active alcoholic hepatitis	
6. Other viral infections	Rubella and cytomegalovirus in neonates

(Hazzi C. ,1986)

AUTOIMMUNE CAH

In autoimmune CAH, the association with other organ-specific autoimmune disease and with the HLA haplotype A1, B8, DR3, the often striking hypergammaglobulinemia, and the high titre autoantibodies together with the excellent response to corticosteroids, these observations have led to the almost universal acceptance that the disease in this subgroup may have an autoimmune basis (Eddleston A.L.W.F., 1985).

Immunopathogenesis:

1- Defects in immunoregulation:

One of the most important influences controlling both cellular and humoral immune response is the balance between the effects of helper and suppressor T cells. In autoimmune CAH, the helper/suppressor ratio is normal or high and is associated with marked decrease in non-antigen-specific suppressor cell function (Alexander et al., 1983).

Evidence suggestive that the T suppressor cell defect has a genetic basis has been provided by the recent finding of similar immunoregulatory defects in the healthy relatives of such patients (OBrien et al. ,1986).

2- Cellular immunity:

It was found that, untreated cases of autoimmune CAH, have lymphocytes in the peripheral blood capable of damaging their own hepatocytes, and the cytotoxic effect is limited to a non-T cell subpopulation operating via antibody bound to the surface of the liver cells (Mieli-Vergani G. and Eddleston A.L.W.F. ,1981)