

OCULAR COMPLICATIONS OF RHEUMATIC DISEASES IN CHILDREN

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THESIS

Submitted in partial fulfillment of the
Master Degree in Pediatrics



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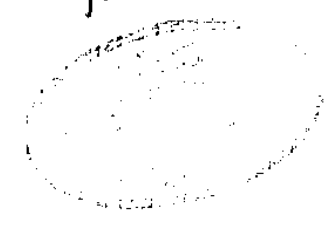
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1994



بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

« قالوا سبحانك لا علم لنا إلا ما

علمتنا إنك أنت العليم الحكيم »

صدق الله العظيم

(سورة البقرة آية ٢٢)



ACKNOWLEDGEMENT

First and foremost, I thank GOD, the 'Beneficent and the Most Merciful.

*It gives me great pleasure to express my deep gratitude to **PROFESSOR DR. MOHAMED AHMED AWADALLAH**, Professor of Pediatrics, Ain Shams University, for giving me the honour to work under his supervision, with his creative mind, kind guidance and constant support.*

*I would also like to express my gratitude to **DR. ELHAM M. HOSSNY**, Lecturer of Pediatrics, Ain Shams University, for her sincere advice, generous help and spending quite a precious time for the proper achievement of this work.*

*My thanks and appreciation are also due to **DR. HANY M. HASSAN EL IBIARY**, Lecturer of Ophthalmology, Ain Shams University, for his guidance, great support and encouragement throughout this whole work.*

I feel deeply indebted to the patients and their parents for their cooperation, and to every member of the Team of Pediatric Allergy and Immunology for without their help and support, this work would not be accomplished.

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ABBREVIATIONS

ANA	Anti-nuclear antibody
ASA	Acetyl salicylic acid
BUT	Break up time
C ₃	Complement 3
C ₄	Complement 4
CRP	C-reactive protein
Cs	Corticosteroids
DNA	Deoxyribonucleic acid
ds-DNA	Double stranded DNA
ESR	Erythrocyte sedimentation rate
HLA	Human leucocyte antigen
HSP	Henoch-Schönlein purpura
IL	Interleukin
JDM	Juvenile dermatomyositis
JRA	Juvenile rheumatoid arthritis
KPs	Keratic precipitates
LPs	Lenticular precipitates
LT	Left
MCTD	Mixed connective tissue disease
NSAID	Non-steroidal anti-inflammatory drugs
RF	Rheumatoid factor
RNP	Ribonucleoprotein
Rt	Right
SLE	Systemic lupus erythematosus
Sm	Smith antigen
VDRL	Venereal Disease Research Laboratory

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Introduction and Aim of the Work

INTRODUCTION AND AIM OF THE WORK

The association between inflammatory ocular and articular disease is a strong one, although the pathogenesis of this relationship is obscure. For the physician or surgeon caring for children with chronic arthritis, awareness of the risk of chronic asymptomatic anterior uveitis is essential if early diagnosis, treatment and prevention of visual impairment are to be accomplished (*Petty, 1990*).

Literature is full of examples of ocular lesions in each of the known rheumatic disorders. Besides, the development and advent of new methods and equipment in ophthalmology made the early diagnosis and follow up of eye diseases available.

This study is aimed to outline the ocular manifestations and complications of some rheumatic diseases in children in relation to disease activity and medication effects.

Review of Literature

RHEUMATIC DISEASES OF CHILDHOOD

These diseases are a group of diverse afflictions that have as their common denominator, inflammation of the connective tissues. The cardinal features of inflammation are redness, swelling, heat, pain and loss of functions (*Cassidy and Petty, 1990*).

Classification of the Rheumatic Diseases in Children

Classification of rheumatic diseases by either clinical or laboratory criteria is complicated by the fact that some rheumatic syndromes appear to be “overlaps” between two or more distinct disease entities (*Cassidy and Petty, 1990*).

Certain criteria were developed specifically for the classification of rheumatic diseases in childhood by a Committee of the American Rheumatism Association that involves other causes of juvenile arthritis which may mimic rheumatic diseases (Table 1) (*Cassidy and Petty, 1990*).

These criteria differ with the specific type of rheumatologic disorder. For rheumatoid arthritis, the criteria are displayed in Table (2).

Table (1): Diagnostic Classification of Juvenile Arthritis and Pediatric Rheumatic Diseases.

Connective-tissue diseases	Rheumatic diseases associated with immunodeficiency
Juvenile rheumatoid arthritis	Selective IgA deficiency
Systemic lupus erythematosus	Agammaglobulinemia and hypogammaglobulinemia
Scleroderma	Complement component deficiencies
Dermatomyositis	
Necrotizing vasculitis	Metabolic and endocrine diseases associated with rheumatic states
Polyarteritis (includes Kawasaki disease)	Crystal-induced arthritis (gout, pseudogout, chondrocalcinosis)
Hypersensitivity vasculitis (includes Henoch-Schönlein purpura and serum sickness)	Biochemical abnormalities
Wegener granulomatosis	Amyloidosis (includes familial Mediterranean fever)
Giant cell arteritis	Vitamin C deficiency (scurvy)
Behçet's disease	Specific enzyme deficiency states (including Fabry's disease, Farber's disease, alkaptonuria, Lesch-Nyhan syndrome)
Miscellaneous	Hyperlipidemias (types II, IV)
Mixed connective-tissue disease and overlap syndromes	Mucopolysaccharidoses
Eosinophilic fasciitis	Hemoglobinopathies (sickle cell anemia, thalassemia)
Sjögren's syndrome	Hemophilia
	Connective-tissue disorders (Ehlers-Danlos syndrome, Marfan's syndrome, pseudoxanthoma elasticum, and others)
Seronegative spondyloarthropathies	Endocrine disease
Juvenile ankylosing spondylitis	Diabetes mellitus
Inflammatory bowel disease	Acromegaly
Regional enteritis	Hyperparathyroidism
Ulcerative colitis	Thyroid disease (hyperthyroidism, hypothyroidism)
Psoriatic spondyloarthritis	Other hereditary or congenital disorders
Reiter's syndrome	Arthrogryposis multiplex congenita
	Hypermobility syndromes
Degenerative joint disease	Myositis ossificans progressiva
Arthritis, tenosynovitis, and bursitis associated with infectious agents	Neoplasms
Direct	Malignant
Bacterial arthritis	Primary (e.g. synovium, synoviosarcoma)
Gram-positive cocci (staphylococcus and others)	