

**ANTINEURONAL ANTIBODIES  
IN  
PATIENTS WITH RHEUMATIC CHOREA**

*Thesis*

*Submitted For Partial Fulfilment of  
Master Degree in Pediatrics*

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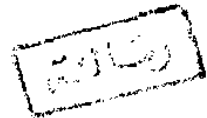
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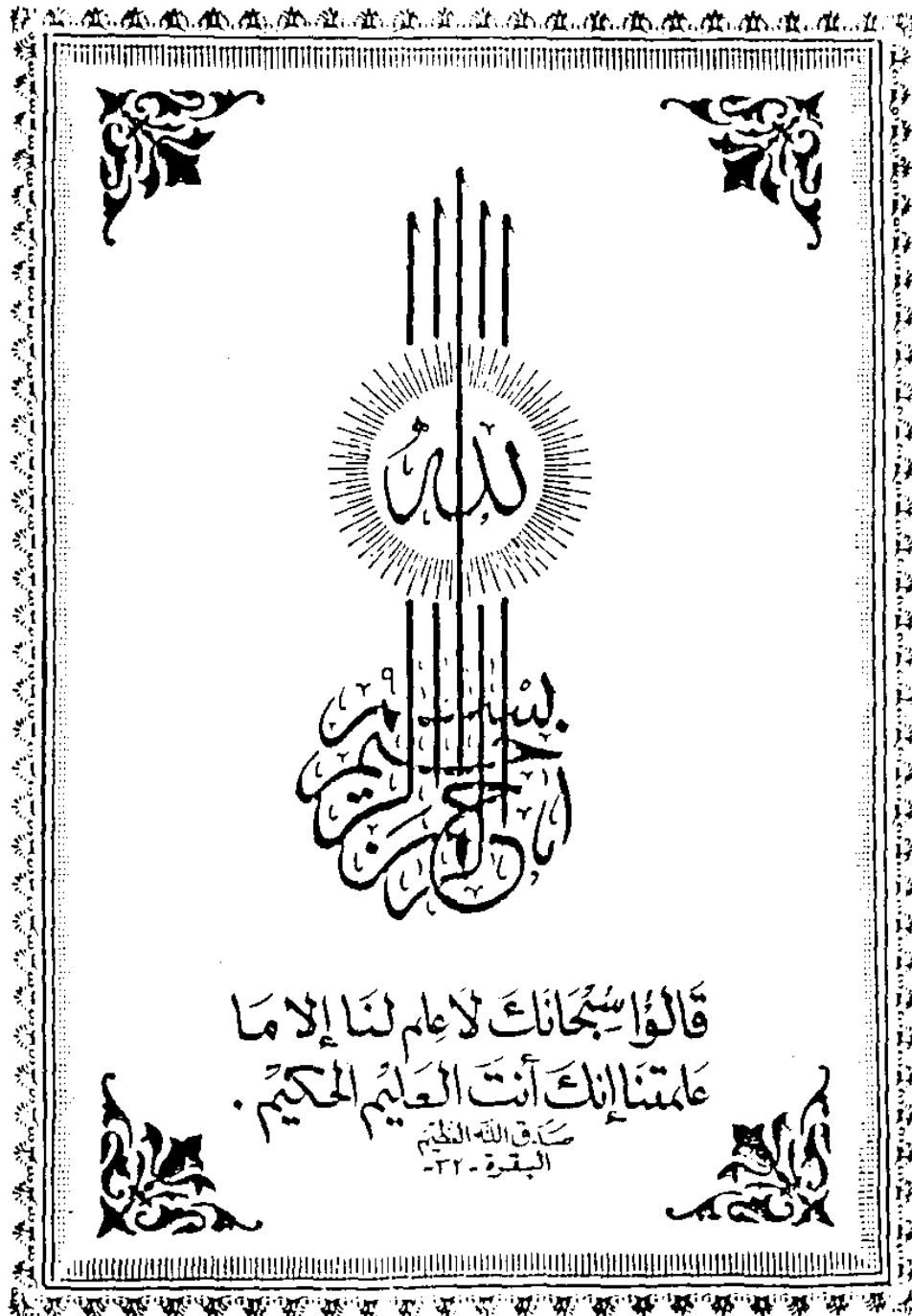
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## LIST OF ABBREVIATIONS

ASO	Antistreptolysin O
ASTZ	Antistreptozyme
A-V	Atrioventricular
$\beta$	beta
CNS	Central nervous system
CPR	C-reactive protein
CSF	Cerebrospinal fluid
DNase B	Deoxyribonucleotidase B
ECG	Electrocardiogram
Echo	Echocardiography
ESR	Erythrocyte Sedimentation rate
F	Female
FITC	Fluorescein isothiocyanate
$\gamma$	Gamma
GABA	Gamma amino butyric acid
GABH	Group A beta hemolytic
GAS	Group A streptococci
HLA	Human leucocyte antigens
Ig	Immunoglobulin
IM	Intramuscular
M	Male
MRI	Magnetic imaging resonance
Ms	Months
No	Number
OCD	Obsessive compulsive disorders
PBS	Phosphate buffered saline
PET-FDG	Positron emission tomography with F-fluorodeoxy glucose
SD	Standard deviation
WK	Week
Yr	Year
-ve	Negative
+ve	Positive

# INTRODUCTION

## INTRODUCTION

Sydenham's chorea is a neurologic disorder characterized by sudden involuntary, purposeless, rapid movements, muscular weakness, and emotional lability (*Braunwald, 1984*).

It is a late manifestation of acute rheumatic fever occurring 1 to 6 months after an acute group A  $\beta$ -hemolytic streptococcal throat infection (*Gibb et al., 1985*).

Rheumatic chorea is attributed to antibody mediated immunity directed against a neuronal antigen with stimulation of target cell activity in the corpus striatum (*Waksman, 1983*).

*Husby et al., in 1976* have demonstrated the presence of IgG antibodies in sera from children with rheumatic chorea reacting with neuronal cytoplasmic antigen which appear to be preferentially increased in caudate and subthalamic nuclei of human brain.

Sydenham's chorea may be the only manifestation of rheumatic fever, or it may be associated with other manifestations. Most observers think that residual heart disease is seen less frequently when chorea is the only manifestation of rheumatic fever. The importance of prophylaxis is to prevent recurrent attacks and possible subsequent carditis (*Majeed et al., 1986*).