Pattern of glomerulopathy diagnosed at Ain Shams Specialized Hospital
(A 5-years retrospective study)

Thesis

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List of Contents

List of Tables

List of Tables (Cont...)

List of Tables (Cont...)

List of Figures

List of Figures (Cont...)

List of Figures (Cont...)

List of Figures (Cont...)

List of Abbreviations

Abb.	Full term

ANCA .....: Antineutrophil cytoplasmic antibody.
ARF .....: Acute renal failure.
AUA.....: Asymptomatic urinary abnormality.
CGD.....: Chronic glomerular diseases.
C-ANCAs .....: Cytoplasmic Anti-Neutrophil Cytoplasmic Antibodies.
CKD.....: Chronic kidney disease
CL.....: Cortical labyrinth.
CRF .....: Chronic renal failure.
DCT .....: Distal convoluted tubule.
DM.....: Diabetes mellitus.
DN .....: Diabetic nephropathy.
DNMG.....: De novo membranous glomerulopathy.
DSA .....: Donor-specific alloantibody.
EM .....: Electron microscopy.
ESRD .....: End-stage renal disease.
Fig. .....: Figure.
FPs .....: Foot processes.
FSGS.....: Focal and segmental glomerulo-sclerosis.
GBM.....: Glomerular basement membrane.
GFR.....: Glomerular filtration rate.
GN .....: Glomerulonephritis.
HAART .....: Highly active antiretroviral therapy.
HTN.....: Hypertension.
IDDM .....: Insulin dependent diabetes mellitus.
IgAN.....: IgA nephropathy.
IH.....: Immunohistochemistry.
IL .....: Interleukin.

List of Abbreviations (Cont...)

Abb.	Full term
ISN/RPS .....:	International Society of Nephrology/Renal Pathology Society.
KSA .....:	Kingdom Saudi Arabia
LM .....:	Light microscopy.
LN.....:	Lupus nephritis.
MCD .....:	Minimal change disease.
MesPGN .....:	Mesangioproliferative glomerulonephritis.
MN.....:	Membranous nephropathy.
MPGN .....:	Membranoproliferative glomerulonephritis.
MR.....:	Medullary rays.
NIDDM .....:	Non-insulin dependent diabetes mellitus.
NS.....:	Nephrotic syndrome.
NSAIDs.....:	Non-steroidal anti-inflammatory drugs.
P-ANCAs .....:	Perinuclear Anti-Neutrophil Cytoplasmic Antibodies.
PAN.....:	Polyarteritis nodosa.
PGD.....:	Primary glomerular diseases.
PGN.....:	Proliferative glomerulonephritis.
PIGN.....:	Postinfectious glomerulonephritis.
PLD .....:	Partial lipoid dystrophy.
PSGN .....:	Poststreptococcal glomerulonephritis.
RA.....:	Rheumatoid arthritis.
RBC.....:	Red blood cell.
RPGN.....:	Rapidly progressive glomerulonephritis.
RPRF .....:	Rapidly progressive renal failure.
SD.....:	Slit diaphragm.
SGD.....:	Secondary glomerular diseases.
Sig. .....:	Significance.
SLE.....:	Systemic lupus erythematosus.
TGF-beta.....:	Transforming growth factor-beta.

ABSTRACT

Glomerulonephritis remains as a major cause of morbidity and mortality from renal disease in many parts of the world, particularly in the tropical and subtropical regions. According to several local registries and sporadic publications, it seems to be responsible for 23.2 to 58.4% of patients on regular dialysis in the tropics, compared to recent figures of around 6-8% in the United States and 7.5-19.6% in Europe. Its prevalence among dialysis patients in Egypt has been reported as 7.8% in 2008.

The incidence of biopsy proven GN varies in different geographical areas, as it is affected by socioeconomic condition, race, indication for renal biopsy and differences in genetic susceptibility and environmental exposure. Recent studies reported a changing pattern of incidence of GN in different parts of the world.

Our study aimed to obtain a comprehensive review of the incidence of biopsy proven glomerulonephritis in Ain Shams University Specialized hospital over a period of 6 years. We analyzed the clinical and pathological data of all percutaneous renal biopsies for medical renal disease submitted to the pathology and electron microscopy unit of Ain Shams University Specialized hospital from January 2005-December 2010 with a total of 1320 renal biopsies.

Keywords: Glomerulonephritis; subtropical regions

INTRODUCTION

The procedure of percutaneous kidney biopsy was established in 1951 by Iversen and Brun, and since then, it has played a fundamental role in diagnosis, management and assessment of the prognosis of various kidney diseases. The biopsy technique has remarkably improved over the past decades due to the use of ultrasonography as real-time imaging guidance as well as the development of automated biopsy gun devices, leading to significant decrease in the incidence of life-threatening complications ***(Prasad et al., 2015)***.

Identification of the pattern of glomeruolepathy in a specific geographical region is of essential importance regarding clinical, academic, and epidemiological aspects. It assists in the understanding of particular risk factors and subsequent planning for early detection and adequate control of glomerular diseases ***(Onwubuya et al., 2016)***.

Glomerulonephritis [GN] is considered as a significant cause of mortality and morbidity from renal disease in many parts of the world, mainly in the tropical and semitropical regions ***(Barsoum, 2006)***.

The incidence of glomerulonephritis differs according to the genetics and demographic features of the population. In addition, it differs according to environmental factors like

weather, as well as socioeconomic status and spread of infectious diseases ***(Brophy et al., 2015)***.

Racial factors seem to play a remarkable role, not only in influencing the incidence, but also in defining the pattern, severity and progression of the glomerular response ***(Pazianas et al., 1991)***.

Environmental factors may also participate as modifiers of the glomerular diseases in various geographical areas. The role of heavy metals, e.g. mercury, and hydrocarbons pollution is of specific attention ***(Mayes, 1999)***.

Etiology is a major contrast between GN in the tropical and non-tropical areas. Secondary forms of GN are much more prevalent in the tropics than in the industrialized countries ***(Barsoum and Sitprija, 1996)***.

Infection persists as an important cause of glomerular diseases in developing and under developed countries. Many of the infective agents have been recognized, such as HBV, HCV, Streptococcus, Schistosomiasis and Malaria ***(Tang, 2009)***.

In addition, the incidence of glomerular diseases varies according to the level of detection of urinary findings, and the biopsy rate which reflects the biopsy resources and the biopsy policy of the community ***(Wirta et al., 2008)***.