

GLOMERULONEPHRITIS IN ELDERLY PATIENTS A COMPARATIVE STUDY

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INTRODUCTION

Glomerular disease is not uncommon in elderly patients. Contrary to young and adult patients glomerulonephritis were not well described in elderly patients.

The aim of our study is to determine the epidemiological, clinical, biological, histological and etiological specificities of glomerulonephritis in TUNISIAN elderly patients.

RESULTS

• we have undertaken a **retrospective study** during the period 1975 to 2005 in department of nephrology of Charles Nicolle hospital in Tunis, comparing two groups : **group A** of a 110 patients aged 65 years old, to a **group B** of a 110 patients aged between 16 and 55 years old.

• Among 2351 patients hospitalized in our nephrological department who had underwent renal biopsy for a none diabetic glomerulonephritis, 110 patients were aged 65 years and old (4,6%).

• During the period of the study, we have observed an increasing number of patients who had underwent renal biopsy 12,7 % between 1975-1984, 29,1 % between 1985 - 1994 and 58,2 % between 1995 - 2005.

	GROUP A	GROUP B	P
AGE	70,3	32,4	
SEX RATIO	1,9	1	
PAST RECORD	46 %	28 %	0,008
OEDEMA	78 %	71,8 %	NS
HTA	47,7 %	52,3 %	NS
OLIGURIA	10,6 %	4,9 %	NS
HEMATURIA	72,2 %	70 %	NS

Cinical features

	GROUP A	GROUP B	P
PROTUNURIA	4,7g/ day	4,6g/ day	NS
NEPHROTIC SYNDROME (NS)	52,7 %	64,5 %	NS
IMPUR NS	91,4 %	83 %	0,07
HYPOGAMMA+ NS	16,4 %	45,7 %	<0,001
RENAL FAILURE	91,8 %	70,6 %	<0,0001

Biological features

	GROUP A	GROUP B	P
NEPHROTIC SYNDROME	52,7 %	64,5 %	NS
URINARY ABNORMALITIES	4,5 %	24,5 %	<0,001
RENAL FAILURE	28,1 %	6,3 %	<0,001
ACUTE NEPHETIC SYNDROME	14,5 %	4,5 %	<0,001

Indications of renal biopsy

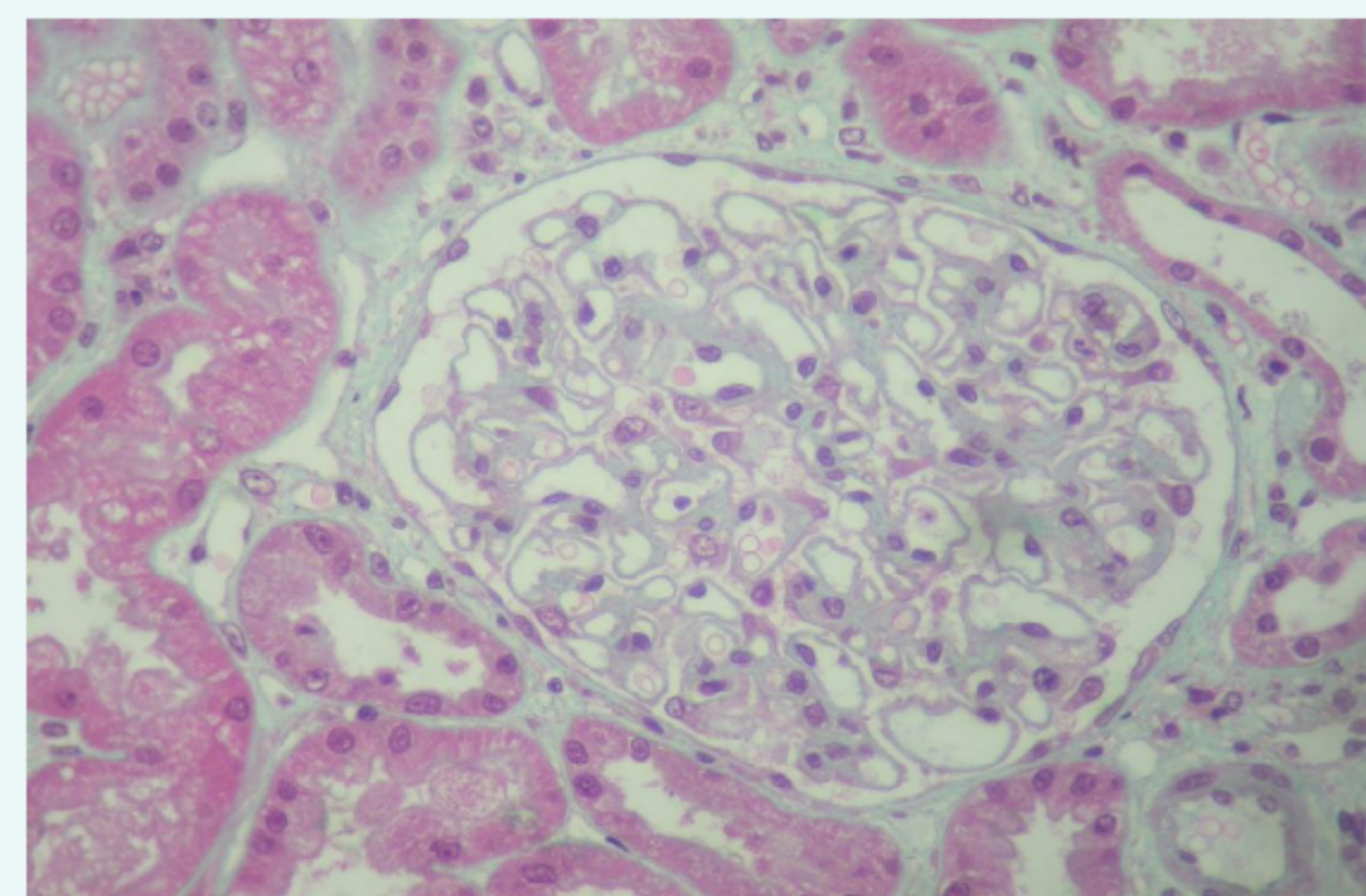


Fig 1 membranous

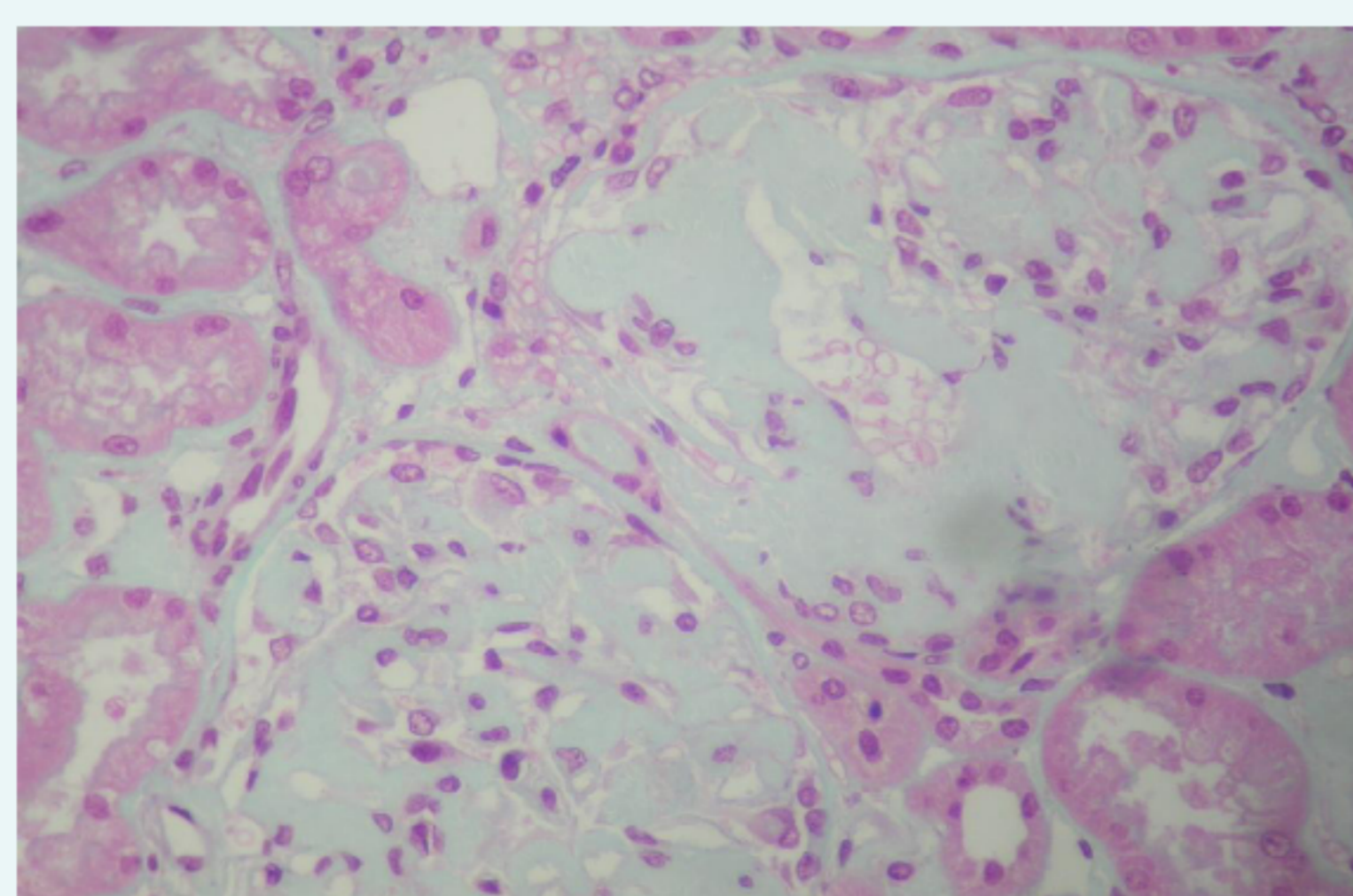


Fig 2 amyloidosis

	AMYLOIDOSIS	ME MBRANOUS	MEMBRANOUS PROLIFERATIF	EXTRACAPILLAR	OTHERS
GROUP A	30,9 %	20,9 %	16,3 %	15,3 %	16,6 %
GROUP B	5,4 %	16,3 %	14,5 %	6,3 %	57,5 %
P	<0,001	NS	NS	NS	

The main histological features

- Complications related to renal biopsy were observed only in 2,7 % of cases.

- Secondary glomerulonephritis where more frequent than primary one's (65,4% VS 40 % P 0,007) in elderly patients, dominated by amyloidosis (47,2 %) and extracapillary glomerulonephritis (23,6 %). Infection was the main cause of secondary glomerulonephritis (51,4 %) in group A, followed by systemic diseases (20,8 %), neoplasia (15,3 %) and chronic inflammatory rheumatism diseases (5,5 %).

DISCUSSION

➤ The first reports about glomerulonephritis in elderly patient were based on necroscopy study. Nowadays, thanks to renal biopsy facilities many authors think that glomerular disease were not uncommon in elderly (1).

➤ In the major study, the frequency of glomerulonephritis in aged patient varied between 10 and 25 % of cases (2). These frequencies were more important than our, this difference was explained by the non inclusion of diabetic glomerulonephritis and the lack of geriatric care in the first period in our study.

➤ In recent reports we noted an increasing number of elderly patients undergoing renal biopsy, this fact has been observed in our study. There is no reason to believe that the incidence of glomerular disease in the elderly is increasing and all the evidence would suggest that the increasing number of ageing patients undergoing biopsy are a reflection of increasing referral rates.

➤ In our study the male were more affected than female, this fact was in keeping with the findings of previously reported series (3).

➤ Oedema was the main clinical feature revealing glomerulonephritis in our patients, a figure that was not in accord with other reported series where the systematic urinary check for proteinuria or microscopic hematuria was the major manner for detecting glomerular diseases. This difference was explained by the lack of urinary abnormalities check in our elderly. Some authors think that urinary abnormalities even detected they were often attributed to urological abnormalities which they were not uncommon at this age (4,5).

➤ Nephrotic syndrome is a common mode of presentation of glomerular disease in the elderly, it was observed in 30 to 60% of cases. In our study it was observed in 52,7% of cases, it was so often impur by renal failure and slightly associated with hypogammaglobulinemia and dyslipidemia contrary to what was observed in young patients (1).

➤ Our study accorded well with the previous series about the innocuity of renal biopsy in elderly patients (6).

➤ Many different histological appearances can be identified but that most frequently seen was membranous nephropathy. In contrary in our study amyloidosis was the main form noted. This fact is explained by the frequency of chronic infectious diseases in our country (3).

➤ In our study membranous proliferative nephropathy was common (16,3%), whereas previous reports have suggested that this was rare. This is due also to the frequency of chronic infectious diseases in our country (6).

➤ Contrary to our study, it was reported in the previous series that primary glomerulonephritis were more frequent in elderly patients. They were observed in 66 to 78 % of cases (6,3,5).

➤ Rapid progressive proliferative glomerulonephritis type III were been increasingly observed, their frequencies were 10% in 1980, reached 30% in 1990. This was the result of increasing ANCA screening. In our study they represent 11% of secondary glomerulonephritis (5).

CONCLUSION

Glomerular disease in elderly patients represented 4,6% of none diabetic glomerulonephritis biopsied in our nephrological department. They were characterized by :

- The heterogeneity of their histological forms and the predominance of amyloidosis mainly it's AA types.
- The diversity of their etiological forms mainly the infectious causes.
- The frequency and the severity of renal failure at the time of diagnosis of the glomerular disease.

The improvement of healthy care in our country will be responsible for the change of the glomerular profile of our ageing patients.

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