

RENAL BIOPSY DURING PREGNANCY ABOUT 14 CASES

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ABSTRACT:

Background: The security of the renal biopsy (RB) during pregnancy is a matter of debate. However, it may be imperative. The purpose of this study was to evaluate the role of renal biopsy in diagnosing kidney damage during pregnancy and to check its innocuousness.

Patients and Methods: A retrospective study of 9 RB echo-guided conducted in 9 pregnant women with renal disease. The clinical and biological characteristic (24 h proteinuria, creatininemia, protidemia, albuminemia and hematuria) are analyzed. The indications for (RB) are noted and the treatments used. Toxemic patients are excluded.

Results: The mean age was 32,8 years.8 are multiparous and 6 nulliparous. Gestational age was 16 ± 5 weeks of amenorrhea. Indications for RB were nephrotic syndrome in 12 cases, recurrent macroscopic hematuria in 1 case and 1 patient with renal failure and hypertension. The average systolic blood pressure was 130 ± 20 mmHg and diastolic 76 ± 15 mmHg. The average rate of proteinuria of 24h is 3.9 ± 5.4 g/24 h, creatininemia was 10 ± 4 mg / L plasma protein was $50,6 \pm 5$ g / L and albuminemia was 20 ± 5 g / L. The RB showed minimal change disease (MCD) in 4 cases, Extramembranous glomerulonephritis (EMG) in 4 cases, lupus nephritis (LN) class IV in 3 cases, IgA nephropathy (IgAN) in 1 case and focal segmental hyalinosis (FSH) in 2 case. The aftermath of the RB were uneventful in all our patients. Medical termination of pregnancy was indicated in 3 cases of NL Class IV placed under corticosteroids + MMF in the first case and corticosteroids + cyclophosphamide in the other cases . The patient with EMG II was treated by corticosteroids + cyclosporine. Steroids should be prescribed in cases of glomerulonephritis MCD and FSH and EMG III. Therapeutic abstention with clinical and biological surveillance is indicated for patients with EMG I and IgAN.

Conclusion: The RB during pregnancy can determine the type of renal disease, to establish adequate treatment and to clarify the prognosis maternal and fetal.

INTRODUCTION

- The association nephropathy and pregnancy is associated with significant morbidity and mortality, both for the mother and fetus.
- Since its introduction in 1960, the renal biopsy (RB) is increasingly performed in pregnant women, however it is still a subject of debate.

AIM OF THE WORK

To review our experience of PBR during pregnancy:

- Indications;
- Complications;
- Results histology;
- Prognosis mother and child.

PATIENTS & METHODS

- A retrospective study;
- Fourteen Renal Biopsy echo-guided performed in 14 pregnant women with renal disease;
- Toxemic patients were excluded;
- The parameters studied are:
 - Clinical: age, parity, gestational age, blood pressure
 - Biological: 24h proteinuria, creatininemia, protidemia, albumin, hemoglobin and hematuria.
 - The indications for RB are cited as well as suites, the histological results and therapeutic adopted.

RESULTS

Table I: Clinical Informations.

Age (year)	32,8
Parity	8 multiparous
Gestational age (week)	16
Blood pressure (mmHg)	130/76

Table II: Laboratory tests.

Proteinuria(g/24h)	3,9
Plasma Protidemia (g/L)	50,6
Albumin (g/L)	20
Serum creatinin (mq/L)	10
Hematuria (cases)	10

Table III: indication of Renal Biopsy

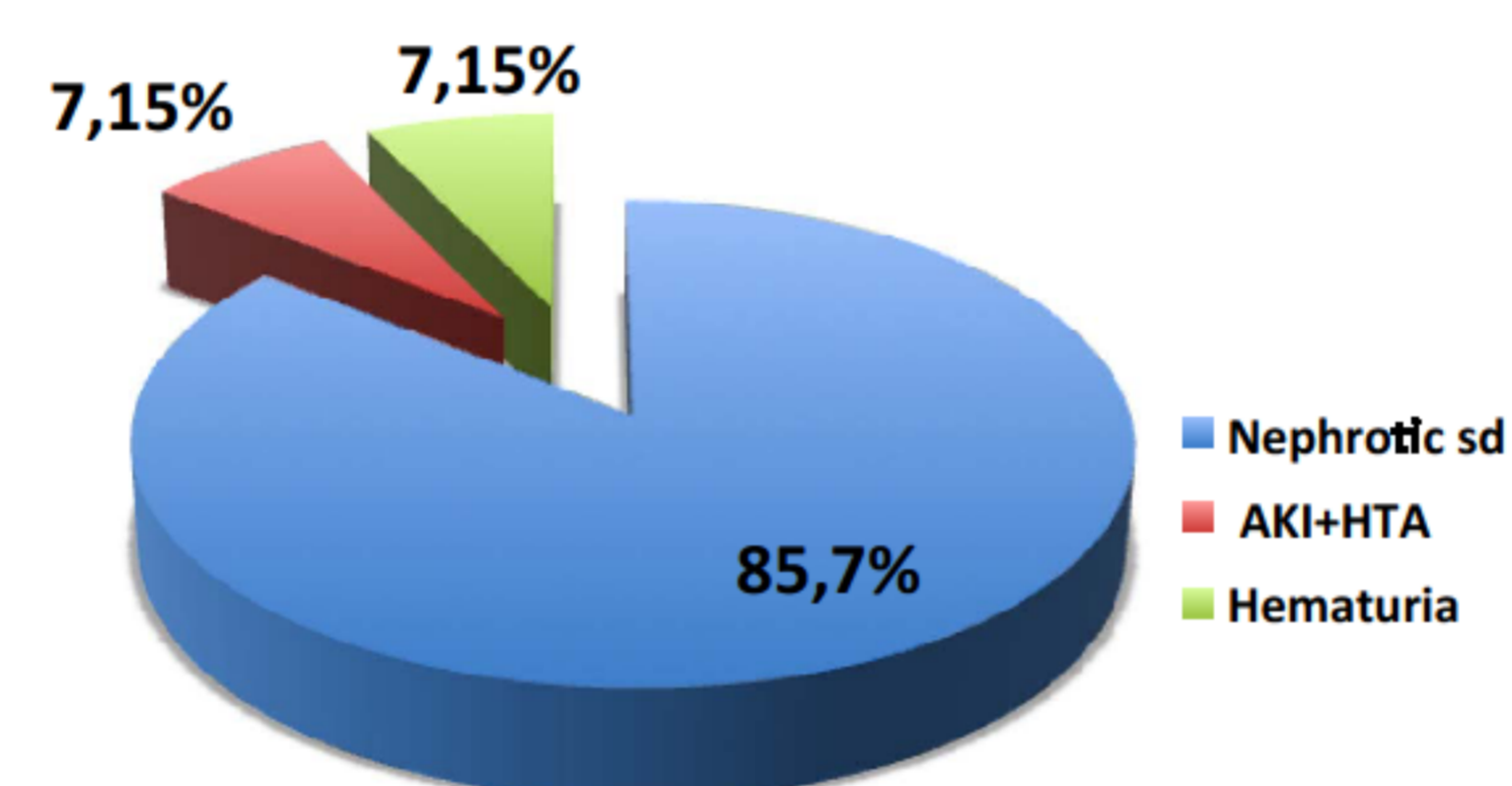
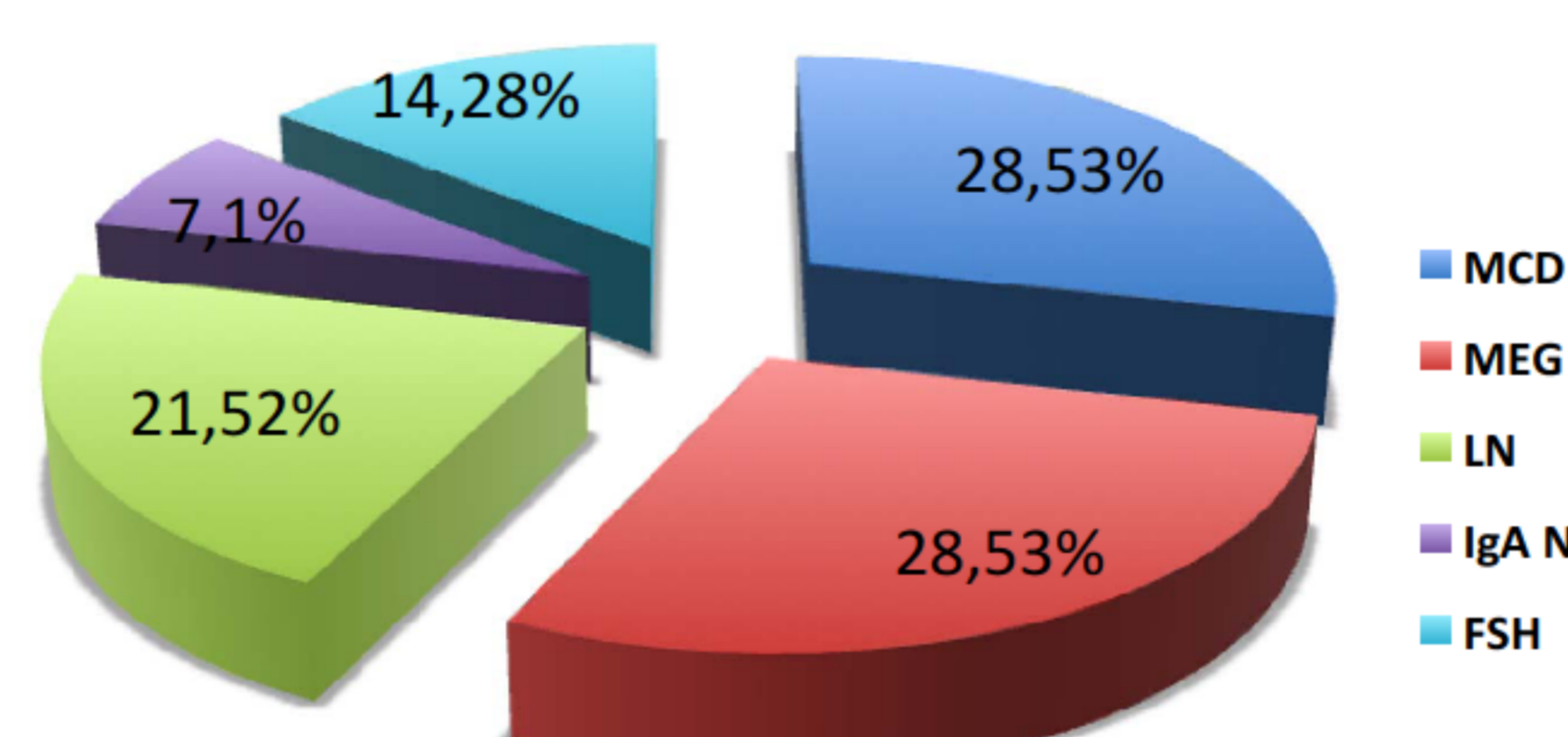


Table IV: Renal biopsy.



Medical termination of pregnancy was indicated in cases of NL Class IV placed under corticosteroids + MMF in the first case and corticosteroids + cyclophosphamide in 2 cases.

The patient with EMG II was treated by corticosteroids + cyclosporine. Steroids should be prescribed in cases of glomerulonephritis MCD and FSH and EMG III.

Therapeutic abstention with clinical and biological surveillance is indicated for patients with EMG I and IgAN.

DISCUSSION

- The first series of the RB during pregnancy describe a incidence rate of complications, Schewitz et al [1]
 - Hematuria abundance: 16.7%
 - Perirenal hematoma: 4.4%
 - A Maternal Deat
- However, a subsequent review of renal biopsies carried out during pregnancy found that in many cases these biopsies were carried out via the peritoneal route during Caesarean section and in women who were markedly hypertensive. In addition, this was prior to the recognition of the bleeding diatheses associated with pre-eclampsia [2]
- In subsequent more recent series the complication rates are similar to those of non-pregnant subjects [3].
- Whilst previous recommendations suggest performing renal biopsy only when there is as sudden deterioration of renal function before 32 weeks with no obvious cause or in the case of symptomatic nephrotic syndrome before 32 weeks[2-4].
- Day and al describe two series of patients; the first is a series of women who underwent renal biopsy during pregnancy and the second describes 75 women who were initially diagnosed for the first time with a renal disorder antenally but underwent renal biopsy post-partum: [5]
 - The risk of complications is directly related to the severity of nephropathy;
 - The RB is not the routine examination to differentiate a renal preeclampsia
- The realization ultrasound-guided and use of small caliber Trocard reduces the risk of complications.
- In light of our experience:
 - Precautions making:
 - controlling blood pressure;
 - normal hemostasis balance;
 - Normal Rate Pq;
 - sterile urine culture;
 - Kidney size on ultrasound sup 10cm.
 - The realization echo-guided,
 - experienced operator
 - Minimizes the occurrence of complications
- The RB provides an accurate diagnosis, proper therapeutic conduct and improved prognosis maternal/fetal.

CONCLUSION

- The RB is the key examination for adequate therapeutic management of renal disease during pregnancy and improved maternofetal prognostic

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