

THESIS ABSTRACT

Name: Dr.S.Nasreen Shafieqa

Title: A STUDY OF MATERNAL SERUM CYSTATIN C AND SERUM CREATININE LEVELS IN PREECLAMPTIC AND NORMOTENSIVE PREGNANCIES - A CASE CONTROL STUDY

Period of study: 6 months

Institution: Government Kilpauk Medical College, Chennai

Background: Preeclampsia, a syndrome characterized by hypertension, proteinuria and systemic vasoconstriction, is one of the leading causes of maternal and fetal morbidity. Altered renal function is an essential component of the pathophysiology of preeclampsia, which could lead to acute renal failure- an important cause for maternal morbidity and mortality. Majority of deaths due to preeclampsia and eclampsia are avoidable through early diagnosis and treatment of acute renal failure. Creatinine is unable to detect reduced GFR in early stages of kidney dysfunction hence the search for new biomarker like Cystatin C. Serum cystatin C is extremely sensitive to minor changes in GFR in the earliest stages of kidney disease.

Methods: A case control study was conducted among 40 preeclamptic and 40 normotensive term primigravidae and the values of serum creatinine and serum cystatin C were compared.

Results: Serum cystatin C concentrations were significantly higher in preeclamptic patients (0.895 ± 0.310 mg/L) compared to the normotensive females (0.489 ± 0.064 mg/L) whereas serum creatinine levels did not show significant difference between the two groups.

Conclusion: Serum cystatin C appears to be a superior marker of renal function compared to serum creatinine in patients with preeclampsia and should be routinely included in the investigative work-up of these patients.