Urinary Protein Profile in Normotensive Pregnants and Preeclamptic Pacients

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Preeclampsia is characterized by proteinuria and high blood pressure in the second half of pregnancy in otherwise previously normotensive pregnant women. The mechanism, as well as the origin of the proteinuria in preeclampsia, are unclear. Since this parameter has importance in the diagnosis of preeclampsia, we proposed an analysis of urinary protein profile in preeclamptic patients and normotensive pregnant women. Fifteen preeclamptic patients and twelve normotensive pregnant women (control group) were included in this study. Total urinary protein was 4.09 mg/ml ($\pm$3.22) in preeclampsia group and 0.88 mg/ml ($\pm$0.67) in normotensive pregnants. Albumin (colorimetric method) was detectable just in 40% of urine samples of preeclamptic patients against 17% in the control group. Meanwhile, electrophoretic profiles (SDS-PAGE) showed very different protein patterns between the two groups. A protein band corresponding to albumin was visualized in just one patient with preeclampsia (6%), and one patient in the control group also displayed this band (8.3%). Protein profiles of 58.3% of control samples have no visible protein bands, while all preeclamptic samples presented visible protein bands. Proteins of molecular mass below 30 kDa were more frequent and a band of 21 kDa was visualized in 53.3% of the preeclamptic samples against 25% of control samples. A 19 kDa band was noted only in preeclamptic samples (67%). Our data showed different urinary protein profiles between preeclamptic patients and normotensive pregnant women. About the proteins source, glomerular origin is not probably because of the low range of molecular mass of proteins observed for preeclamptic patients. We may not to discard a tubular dysfunction or a protein overload of fetal-placental unit origin.