

## Double Burden of Hypertension-Hyperalbuminuria in the Pregnant Women: Cross-Sectional Study of Prevalence and Risk Factors in Foumban, West Region, Cameroon

**Authors :** Pierre Mintom, Ebai Patricia, Merlin Dasse, Marlyse Chantal Nyangon Ndongo, Aicha Aretouyap Kouotou, Felix Essiben, Christine Fernande Nyangono Biyegue

**Abstract :** Background: The death of women during and after pregnancy remains a major concern in public health policy in Cameroon. Among the causes of this mortality is eclampsia which is a consequence of the Pre-eclampsia characterized by the double burden of pregnancy-induced hypertension and albuminuria in pregnant women. Objective: To determine the various factors associated with the pre-eclampsia in pregnant women of Foumban. Methodology: A cross-sectional and analytical study was carried out during the period from July to August 2020 and supplemented by another study carried out from August 05 to September 05, 2022, at the Foumban district hospital. A questionnaire was administered to pregnant women. It focused on socio-demographic parameters, the state nutritional, health status, and maternal parameters. Blood pressure was taken using an electronic blood pressure monitor, and urinary albumin was measuring using urine dipstick. Pre-eclampsia was defined by three types of double burden: double burden systolic hypertension-hyperalbuminuria (SHH), defined for SBP $\geq$ 140 mmHg and hyperalbuminuria  $\geq$ 1+ on urine dipstick, double burden diastolic hypertension-hyperalbuminuria (DHH), defined for PAD $\geq$ 90 mmHg and hyperalbuminuria  $\geq$ 1+ on the urine dipstick, and the double burden systolodiastolic arterial hypertension-hyperalbuminuria (SDHH), defined for SBP  $\geq$  140mmHg, PAD $\geq$ 90 mmHg and hyperalbuminuria  $\geq$ 1+ on urine dipstick. IBM SPSS Software was used for statistical analysis. Results: The results of this study show that the prevalence of pre-eclampsia was 17.3% for the double burden SHH, 19.9% for the double burden DHH and 14.1% for double burden SDHH. Associated factors with pre-eclampsia according to the three types of double burden were marital status (P<0.05), religion (P<0.05), history of hypertension before pregnancy (P<0.05). Associated factors for the double burden of DHH and SDHH were the nutritional status before the pregnancy (P<0.05) and the number of prenatal consultations (P<0.05). In terms of food groups, regular consumption of spices significantly increased the risk of pre-eclampsia by 5.318, 6.277 and 11.271 times respectively for the SHH, DHH and SDHH double burdens, while regular consumption of sweets regular consumption of sweets increased by 2.42 times and 2.053 times respectively the double DHH and SDHH burdens respectively. Conclusion: Our study made it possible to redefine pre-eclampsia by considering the subtypes of hypertension. Certain socio-demographic parameters and certain dietary habits influence the occurrence of pre-eclampsia characterized by the double burden Hypertension-hyperalbuminuria in pregnant women, which may later lead to the occurrence of eclampsia. Moreover, albuminemia could be a good predictive factor of pre-eclampsia and could be explored.

**Keywords :** hypertension, hyperalbuminuria, pregnant women, foumban

**Conference Title :** ICHN 2024 : International Conference on Human Nutrition

**Conference Location :** Paris, France

**Conference Dates :** August 29-30, 2024