

Associated Factors of Hypertension, Hypercholesterolemia and Double Burden Hypertension-Hypercholesterolemia in Patients With Congestive Heart Failure: Hospital Based Study

Authors : Pierre Mintom, William Djeukeu Asongni, Michelle Moni, William Dakam, Christine Fernande Nyangono Biyegue.

Abstract : Background: In order to prevent congestive heart failure, control of hypertension and hypercholesterolemia is necessary because those risk factors frequently occur in combination. Objective: The aim of the study is to determine the prevalence and risk factors of hypertension, hypercholesterolemia and double burden HTA-Hypercholesterolemia in patients with congestive heart failure. Methodology: A database of 98 patients suffering from congestive heart failure was used. The latter were recruited from August 15, 2017, to March 5, 2018, in the Cardiology department of Deido District Hospital of Douala. This database provides information on sociodemographic parameters, biochemical examinations, characteristics of heart failure and food consumption. ESC/ESH and NCEP-ATPIII definitions were used to define Hypercholesterolemia (total cholesterol ≥ 200 mg/dl), Hypertension (SBP ≥ 140 mmHg and/or DBP ≥ 90 mmHg). Double burden hypertension-hypercholesterolemia was defined as follows: total cholesterol (CT) ≥ 200 mg/dl, SBP ≥ 140 mmHg and DBP ≥ 90 mmHg. Results: The prevalence of hypertension (HTA), hypercholesterolemia (hyperchol) and double burden HTA-Hyperchol were 61.2%, 66.3% and 45.9%, respectively. No sociodemographic factor was associated with hypertension, hypercholesterolemia and double burden, but Male gender was significantly associated ($p < 0.05$) with hypercholesterolemia. HypoHDLemia significantly increased hypercholesterolemia and the double burden by 19.664 times ($p = 0.001$) and 14.968 times ($p = 0.021$), respectively. Regarding dietary habits, the consumption of rice, peanuts and derivatives and cottonseed oil respectively significantly ($p < 0.05$) exposed to the occurrence of hypertension. The consumption of tomatoes, green bananas, corn and derivatives, peanuts and derivatives and cottonseed oil significantly exposed ($p < 0.05$) to the occurrence of hypercholesterolemia. The consumption of palm oil and cottonseed oil exposed the occurrence of the double burden of hypertension-hypercholesterolemia. Consumption of eggs protects against hypercholesterolemia, and consumption of peanuts and tomatoes protects against the double burden. Conclusion: hypercholesterolemia associated with hypertension appears as a complicating factor of congestive heart failure. Key risk factors are mainly diet-based, suggesting the importance of nutritional education for patients. New management protocols emphasizing diet should be considered.

Keywords : risk factors, hypertension, hypercholesterolemia, congestive heart failure

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