Archives of Cardiovascular Disease Supplements (2019) 11(3S), e358—e360

Available online at ScienceDirect www.sciencedirect.com

Elsevier Masson France EM|consulte www.em-consulte.com/en

06—Experimental hypertension and pathophysiology

Adherence of low sodium diet and antihypertensive therapy in hypertensive type 2 diabetic patients

H. Chatti*, A. Tmessek, S. Zribi, R. Mizouri, F. Ben Mami
National Institute of Nutrition, Service C, Tunis, Tunisia
* *Corresponding author.*
E-mail address: hiba.allah.chatti@gmail.com (H. Chatti)

Introduction High blood pressure is a very common pathology, it is a cardiovascular risk factor, accounting for nearly 4.5% of the global burden of disease according to the World Health Organization. Low sodium diet and good adherence to antihypertensive therapy are key factors in the management of hypertension in all hypertensive patients, especially in diabetics.

Patients and methods We carried out a descriptive cross-sectional study that included 45 type 2 diabetics all with high blood pressure. Compliance with antihypertensive therapy was assessed by Girerd's questionnaire. The observation of the low sodium diet was estimated by using a subjective evaluation on an analog scale ranging from 1 (poor compliance) to 5 (very good compliance) and the ExSel Test to quantify the daily salt intake according to sex, body mass index and the diet followed by the patients. Adhesion to the sodium diet was objectively assessed by the 24-hour natriuresis. Poor compliance with the low sodium diet corresponds to a natriuresis of greater than 102 mmol/24hr of sodium (i.e. a salt intake > 6 g/day).

Results The mean age of our patients was 61 ± 8 years with a sex ratio (M/F) of 0.36. According to the analog scale evaluating adherence to the low sodium diet, more than half of them (53%) said they were insufficiently or poorly observant, 8 patients adhered correctly to the diet. 86.7% of patients reported that they had never received nutritional education from their referring physicians. The average natriuresis was 94.7 mmol/24 h. The natriuresis of 24 hours in our patients was greater than 102 mmol/24 h in 42% of cases with a non-controlled hypertension in 73% of these patients. Natriuresis was less than 102 mmol/24 h in 58% of patients, of whom 41% had poorly controlled hypertension. The ExSel Test has been performed for all patients. According to this test the daily salt intake was excessive in almost half of patients (44.5%) with poorly controlled hypertension in only 45% of these patients. According to the Girerd's questionnaire, no patient showed good compliance with medication. 82% were non-observer with poorly controlled hypertension in more than 51% of these patients, and the remaining 8 patients were poorly observant of their antihypertensive treatments; only one patient of these 8 patients had a well-controlled hypertension.

Conclusion High blood pressure is an additional risk factor in the diabetic population. Its correct management is therefore essential. It begins with a good dietary education, adherence to low sodium diet and good compliance with medication.

Disclosure of interest The authors declare that they have no competing of interest.

https://doi.org/10.1016/j.acvdsp.2019.05.058

Intracellular redox status during acute coronary syndrome

Sabah Gheddouchi[1], Nassima Mokhtari-Soulimane[1,*], Hafida Merzouk[1], Fayçal Soulimane[2], Fadia Bekhti[1], Abderrahim Meziane Tani[2]
[1] *Laboratoire de recherche en physiologie, physiopathologie et biochimie de la nutrition (PPABIONUT), département de biologie. Université de Tlemcen, 13000, Algeria*
[2] *Service de cardiologie, CHU de Tlemcen, 13000, Algeria*
* *Corresponding author.*
E-mail address: nassima_amel@yahoo.fr (N. Mokhtari-Soulimane)

In Algeria, more than one million people have cardiovascular diseases including coronary syndrome, with 20,000 to 25,000 deaths each year. The aim of our study was to determine the oxidative stress markers and antioxidant defence system during acute coronary syndrome.

This work was carried on 50 men with acute coronary syndrome admitted in cardiology department of Tlemcen University Hospital Center matched to 50 healthy controls. Erythrocyte levels of bimolecular oxidation (malondialdehyde, carbonylated proteins) and intracellular levels of free radicals (NO and O^{2-}) were assessed. Furthermore, the erythrocyte activity of antioxidant enzymes (superoxide dismutase (SOD) and catalase) and the intracellular level of reduced glutathione (GSH) were evaluated.

Compared to controls, patients with acute coronary syndrome had a significant higher level of intracellular MDA, carbonylated proteins and free radicals (O^{2-} and NO), while the intracellular level of GSH and the erythrocyte activity of antioxidant enzymes (SOD and catalase) were lower.

In conclusion, acute coronary syndrome is associated with oxidative stress characterized by an oxidant/antioxidant imbalance with a concomitant decrease in antioxidant defence, associated to an increase in intracellular of free radical levels and markers of oxidation.

Disclosure of interest The authors declare that they have no competing of interest.

https://doi.org/10.1016/j.acvdsp.2019.05.059