Conclusions: These results suggest that HSP47 may have a protective effect on hypertensive ICH. Therefore, we emphasize that overexpression of HSP47 may be a new strategy for clinical treatment of hypertensive ICH.

THE ROLE OF MATRIX METALLOPROTEINASE (MMP)-2 TO TYPE I COLLAGEN TURNOVER CONTRIBUTING TO HYPERTROPHIC ARTERIAL REMODELING IN RENOVASCULAR HYPERTENSION

Viviano Gomes de Neves, Marcela Maria Blascke de Mello, Pedro Henrique L Silva, Laena Pernomian, Juliana Montenegro Parente, Michele Mazzaroni Castro. Department of Pharmacology, Ribeirão Preto, Medical School, University of São Paulo, Ribeirão Preto, BRAZIL

Objective: Type I collagen proteolytic products contribute to VSMC proliferation via integrin receptor and focal adhesion kinase (FAK) activation. We then evaluated whether the early activation of MMP-2 in hypertension induces VSMC proliferation, due to type I collagen proteolysis, which may activate integrin and FAK to develop hypertrophic arterial remodeling.

Design and method: Sprague Dawley rats were submitted to 2K1C surgery to induce hypertension and were orally treated with doxycycline or vehicle (five days at first week and eight weeks at ten weeks of hypertension (chronic)). (CEUA-USP 165/2019). In the aorta, we evaluated the expression of MMP-2 and type I collagen by Western blotting; MMP-2 activity by gelatin and in situ zymography; arterial morphology by HE, and collagen deposition by picrosirius red. All statistical analyses used two-way ANOVA followed by Tukey post hoc test with p<0.05.

Results: Our results showed that 2K1C rats developed high systolic blood pressure at the first week (156 ± 13 mmHg vs. Sham (p<0.001)), which was progressively higher at ten weeks (219 ± 6 mmHg, p<0.0001). Moreover, there was a significant increase in the MMP-2 expression and activity in the 2K1C rats at the first and tenth weeks of hypertension (p<0.05). Treatment with doxycycline reduced MMP-2 activity only in the acute situation (p<0.05). The 2K1C showed increased levels of type I collagen as well as its potential degradation products (p<0.05) in the aorta during the first week of hypertension. However, the deposition of collagen was notably resynthesized in the aortas of chronic 2K1C rats (p<0.05).

Conclusions: Treatment with doxycycline reduced such effects in hypertensive rats. At this moment, we concluded that increased activity of MMP-2 may contribute to type I collagen proteolysis in aortas at early stages of hypertension, with its potential re-synthesis at late stages. This proteolytic effect of MMP-2 on collagen may contribute to stimulating VSMC’s proliferation through integrins and FAK, mechanisms that we are currently investigating.

BLOOD PRESSURE MEASUREMENT AND MONITORING BY INTERNAL MEDICINE SPECIALISTS IN GERMANY IN VIEW OF THE SPRINT TRIAL

Leonie Unger1, Thomas Mengden2,1 Rheinische Friedrich-Wilhelms-Universität, Bonn, GERMANY, 2Kerckhoff Clinic, ESH Excellence Centre, Bad Nauheim, GERMANY

Objective: There are continuous discussions about the optimal target blood pressure values, not least due to the publication of the SPRINT study, where unattended ambulatory office blood pressure (AOBP) was used for blood pressure (BP) measurement. The aim of the following online survey was to examine how BP measurement and the management of hypertensive patients are handled in everyday practice by internal medicine specialists in Germany and to compare it with the current guidelines.

Design and method: An online questionnaire with ten questions concerning methods of BP measurement was sent to 15,884 internal medicine specialists as an email via the mailing list of the German Society of Internal Medicine (DGIM). Of these, 731 took part in the survey, which corresponds to a response rate of 4%. The statistical evaluation was carried out with MS Excel.

Results: The standard auscultatory measurement with an aneroid manometer is the leading method used by 44 % and in 95 % of the cases, it is measured in the presence of medical staff, i.e., attended. With 53 %, more than half of the respondents only take one measurement. A group of 36 % take two or more measurements. Of these, the largest percentage with 28 % takes the last value, closely followed by 26 %, who use the average value. The first or lowest value is each used by 17 %, while a minority of 12 % use the highest value. A majority of two-thirds measures without any time reference to taking medication (66 %). Ambulatory and Home BP are used by the majority for therapy control, according to the survey (fig.)

Conclusions: The guidelines are not implemented correctly in many places and the approach to managing hypertension patients varies considerably. Possible reasons for this might be a lack of time in everyday practice and not always specifically formulated specifications in the recommendations of the professional associations, which leads to ambiguities. Measurement using unattended AOBP is rarely used in Germany. To be able to transfer the results from SPRINT, this measurement method would first have to be established.

HOSPITAL PHARMACISTS KNOWLEDGE ABOUT CARDIOVASCULAR DISEASE RISK FACTORS


Objective: This study aimed to assess hospital pharmacists knowledge of cardiovascular disease (CVD) risk factors and their practice of primary prevention of CVD.

Design and method: This was a prospective cross sectional survey of all the Hospital pharmacists in Federal Medical Centre Lokoja (FMCL), and Kogi State Specialist Hospital (KSSH) both in Lokoja L.G.A of Kogi State Nigeria. A Questionnaire on diagnostic cut-off for common cardiovascular diseases (CVD) and practice of primary prevention of CVD was used for the study. The Statistical Package for Social Sciences (SPSS for windows, Version 16.0. SPSS Inc. 2007. Chicago, USA) software was used for data analysis. Continuous data were presented as mean ± standard deviation while categorical data were presented as percentages and frequencies.

Results: About half, 28(46.5) of the hospital pharmacist were less than 40 years with a mean age of 43.44 years. The hospital pharmacist had poor knowledge of diagnostic cut-off for common cardiovascular disease risk factors. Also, the hospital pharmacists had poor practice of primary prevention of cardiovascular diseases. Age, gender and years of practice were associated with knowledge of CVD risk factors while age alone was associated with practice of primary prevention of CVD.

Conclusions: Hospital pharmacists have a poor knowledge of CVD risk factors and also a poor practice of primary prevention of CVD.

PREVALENCE OF HYPERTENSION SELF CARE ACTIVITIES AMONG HYPERTENSIVE PATIENTS RECEIVING CARE IN A SECONDARY HEALTH CARE FACILITY IN KOGI STATE NIGERIA


Objective: This study aimed to access the Hypertension self care activities of hypertensive patients receiving care in a Secondary health care facility in Kogi state Nigeria.

Design and method: This was a prospective cross sectional study conducted among Hypertensive patients receiving care in the Kogi State Specialist Hospital in Lokoja, Kogi state. All hypertensive patients visiting the Kogi State Specialist Hospital during the study period were included in the study. A questionnaire on diagnostic cut-off for common cardiovascular diseases (CVD) and their practice of primary prevention of CVD was used for the study. The Statistical Package for Social Sciences (SPSS for windows, Version 16.0. SPSS Inc. 2007. Chicago, USA) software was used for data analysis. Continuous data were presented as mean ± standard deviation while categorical data were presented as percentages and frequencies.

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Conclusions: Hospital pharmacists have a poor knowledge of CVD risk factors and also a poor practice of primary prevention of CVD.