Evolution of scientific production in cardiology and cardiovascular diseases in Maghreb countries: Bibliometric study

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Introduction Cardiovascular diseases represent a real public health problem in the countries of the Great Maghreb. Biomedical research focused on these diseases contributes to the planning, implementation and evaluation of different programs to combat this global burden. Thus, we conducted this bibliometric study in order to evaluate Maghrebian scientific production in the field of cardiology and cardiovascular diseases.
Methods We used the website SCImago Journal & Country Rank to collect data on Maghreb publications in the field of cardiology and cardiovascular diseases during the period 1996 to 2017. The data collected were exported to SPSS for further statistical analysis.
Results The five Maghreb countries accounted for 14.84% of global publications in the field of cardiology and cardiovascular diseases. A significant increase in the number of published articles was observed ($r^2 = 0.799$, $P < 10^{-3}$). It resulted in a growth index of 3.4. The number of publications increased from 14 in 1996 to 99 in 2017. The scientific research in cardiology peaked in 2015: 294 articles were identified or 23% of the total Maghreb production. Tunisia, Morocco and Algeria contributed to almost all of the biomedical cardiovascular publication with respectively 45.9%, 35.3% and 17% of publications. Thanks to the Tunisian publication in this medical discipline during the period from 1996 to 2017 (586 publications), Tunisia occupies the third position in Africa and the 59th position in the world. The number of citations per publication was 7.9. Libya had the highest number of citations per article (30.35). A significant decrease in the number of citations per document was observed in Mauritania. The H index was 27 and 19 respectively in Tunisia and Morocco.
Conclusions Despite its non-homogeneity, Maghrebian scientific production recorded a clear evolution from 1996 to 2017. However, the progression of cardiovascular diseases in the Maghreb countries is still alarming. It would be of high interest to study the quality of these publications as well as the areas studied.
Disclosure of interest The authors declare that they have no competing interest

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Impact of driving on blood pressure: Example of drivers of a large company of hydraulic works

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Objective The aim of our study was to:
— etablish the prevalence of High blood pressure in a group of professional drivers from a large company of hydraulic works;
— determine the epidemiological profile of hypertensives.
Material and method A descriptive study was carried out during 06 months (2016), The study population included 128 male drivers working for more than 5 years. All subjects answered medical questionnaire and responded a clinical examination (cardiovascular examination, taking blood pressure, MAPA) and additional tests (capillary blood glucose, lipids and kidney checkup. The work situations were analyzed according to a professional grid.
Data processing and analysis We opted for the XL STAT 2016 software. Results The prevalence of HTA among drivers 8%. Mean age of hypertensive workers was 49 ± 5.4 with a predominance of the truck driver category (44%). Prevalence of Hypertension increased with longer duration of employment as driver. Obesity and sedentary lifestyle are the most important cardiovascular risk factors 40% of hypertensives are obese with a body mass index greater than 30. Hypertension is associated to diabetes in 80% of hypertensive drivers. Occupational risk factors were stress, atypical working hours, noise and workload.
Conclusion HTA prevalence among drivers is higher than the national health survey and its association with risk factors, necessary education programme to raise the awareness has to be conducted.
Disclosure of interest The authors declare that they have no competing interest.

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High blood pressure and exposure to lead: About a study of welders at a steel company

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Objective The objective of this study was to evaluate the risk of high blood pressure in welders exposed to lead.
Material and methods we conducted a descriptive analytical study of 30 welders exposed to lead in steel company and 30 unexposed subjects. Each patient was subjected to full complete medical questionnaire and underwent careful physical examination and detailed laboratory investigations. We used statistical tests: t, z, chi^2 tests, relative risk and logistic regression.
Results The subjects were males with an average age of 42 years. Eighty-seven percent of the subjects were married. The average duration of smoking was 5.5 ± 7 years. 58.5% of smokers belong to class. The frequency of hypertension was higher in welders than unexposed (10% vs. 6.6%). The age of onset of hypertension was 28 years for wilders and 38 years for unexposed subjects. The risk of high blood pressure in welders is multiplied by 1.5. This risk increases with years of exposure RR = 2 for welders exposed to lead over 20 years. A significant difference for mean systolic and diastolic blood pressure was recorded ($P < 0.05$).
Logistic regression After adjusting for confounding factors (age, sex, smoking, obesity, the relationship between Hypertension and lead exposure is confirmed for the duration of exposure ($P = 0.01$).
Conclusion We found that long-term exposure to welding fumes increases blood pressure and may increase the risk of hypertension. Exposure to lead remains a risk factor for cardiovascular disease.
Disclosure of interest The author declares that he has no competing interest.

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