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Title: Hypertension prevalence in Romania: preliminary results from SEPHAR III survey

Abstract

The two SEPHARscross-sectional national surveys carried out in the last seven years, revealed that the tendency of HT’s prevalence among romaninan adult population seems to be a descending one, with an increase in awareness, treatment and control of this condition. Still HT in Romania at this time still remains an “unsolved equation”. A recent analysis of SEPHAR II data regarding factors influencing BP control in romanian hypertensive patients concluded that increasing the awearness and level of education in regard to HT of general population will positively impact the trend of BP controll. In this current situation, Romanian Society of Hypertensions has organised a series of actions targeting the increase in the awearness and the level of education in regard to HT and continuos medical educational programs both for physicians and for nurses offering medical care to hypertensive patients. However, in this moment, having only two national representative evaluations does not enable us to estimate a trend in HT prevalence, treatment, and control in Romania, that has a crucial importance for the development of prevention strategies at national level. Also, we need to know if RSH’s actions had the estimated impact on HT prevalence, treatment, and control.

Those were the main premises for designing and conduction of a new epidemiologic national survey SEPHAR III, on a representative sample of approximately 2000 adults selected by means of a multi-stratified proportional sampling procedure (criteria for sample selection were: territorial regions (Romania’s territory was divided in 7 regions plus the capital city Bucharest, based on the National Statistics Institute recommendations), locality type (cities with over 200 000 inhabitants, cities with 50 000-200 000 inhabitants, cities with less than 50 000 inhabitants, Commune), gender (male and female), age groups (18-24 years, 25-34 years, 35-44 years, 45-54 years, 55-64 years, 65-75 years, 75-80 years)

The 2 study visits (at 4 days interval) took part in a special "medical caravan" entitled SEPHAR BUS - fully equipped with all the medical equipment and proper facilities for the conduction for the study, that also allow the team to travel across the country in all the recruitment sites. The fieldwork team was made of cardiologists as primary investigators and senior residents in cardiology and nurses as sub -investigators, and a series of nurses designated by the central laboratory, responsible for blood and urine samples collection and their transport to the central laboratory. Compared to SEPHAR I and II surveys, SEPHAR III’s design brought the novelties of a complete target organ damage evaluation (by means of transthoracic echocardiography and Doppler ultrasound examination of the carotid arteries and measurement of ABI) , the inclusion of the MoCA, Epworth, Morinski and depression questionnaires in the case report form, and the estimation of 24h urinary sodium excretion from morning sport urine samples. SEPHAR III Preliminary results: between November 16th – November 23rd 2015 and February 15th – April 25th 2016, a total number of 2065 adult subjects (18 – 80 years) who gave written informed consent to participate in the study were enrolled. This intern analysis was performed on the data from 1776 enrolled subjects (86%). Hypertension was defined as study SBP ≥ 140mmHg and/or study DBP ≥ 90mmHg at both study visits, or previously diagnosed HT under treatment during the last two weeks, regardless of BP values, were study SBP/DBP was calculated as the arithmetic mean of the 2nd and 3rd BP measurement of each study visit. Hypertension control was defined as SBP < 140mmHg and DBP < 90mmHg in hypertensive subjects who were under treatment for at least 2 weeks before, taking into account the maximum value between the two SBP/DBP values from each visit. Preliminary results revealed a HT general prevalence of 47.5%, in the majority previously diagnosed HT – 39.9%, and a general awareness of HT of 84%. While treatment of HT was recorded in 80.3% of the hypertensive patients, BP cotroll of the treated hypertensive patients was 30.1%. Hypertension prevalence in Romania is increasing, although together with an increase in awareness, treatment and control. Possible explanations of this trend might be unhealthy life-style and diet, increased salt-intake and increase in obesity and diabetes mellitus. SEPHAR III date will offer an estimation of a real 11 – years trend in HT’s prevalence, treatment, and control (2005-2016) and will serve as base for future prevention strategies urgently needed in our country!