LETTER TO THE EDITOR

Biased reporting on cardiovascular mortality in Europe

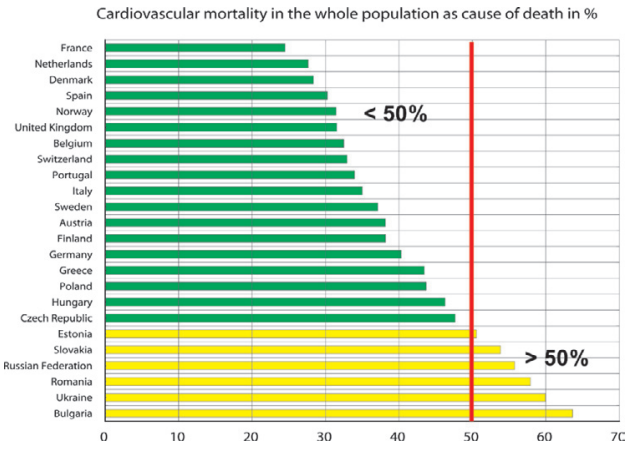
Ginter E

"Cardiovascular disease (CVD) still remains number one killer worldwide". This claim has been perpetrated in numerous popular articles. Statements on cardiovascular (CVD) mortality in European countries and in the USA to be responsible for the death of more than half of the population are inaccurate. Such allegations frequently appear in the popular press and occasionally also in older medical papers published in our journal (1).

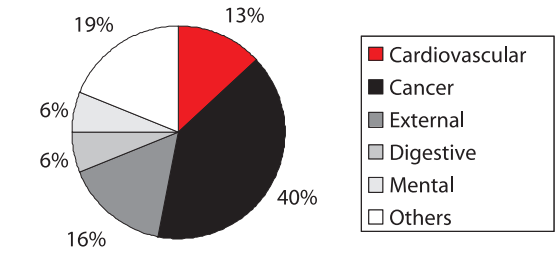
Data on such high CVD mortality were realistic for the period of the 1950'–60´s. However, since then much progress developed in understanding the pathogenesis of CVD, resulting in more efficient primary prevention: improved nutrition, role of physical exercise, smoking and hypertension prevention and in effective pharmacotherapy, most of all with statins.

These complex interventions lead to a sharp decline in CVD mortality in most European regions that have been stable politically and economically. Fig. 1 documents that presently a CVD mortality exceeding 50 % of all causes, affects only a segment of the post-communist countries (2).

In most of the established European democracies the CVD mortality in the whole population contributes to less than 30–40 % (data mostly from 2006–2008). Remarkably, only 25 % of the population of France succumbs to CV disorders. Aging of populations may introduce a demographic bias: official statitics



Structure of premature mortality (0–64 y) in France in 2007



on CVD mortality are probably inflated. With autopsies becoming rare and expensive diagnostic procedures applied to younger people, the cause of death in old and very old age is simplisticly assigned to CVD failure.

Potential remedy for such reporting bias is the introduction of a category "premature mortality" for the population interval 0–64 years of age. Remarkably, contribution of CVD mortality in this age category is substantially lower. Age adjustment compensates for the transition of CVD in older age groups and the increase in the aged population. Consequently, in many European countries the primary cause of premature mortality is malignancy.

Figure 2 illustrates that in the age category 0–64 years, only 13 % of the French population die of CVD while cancer causes the death in up to 40 % (3). Using this perspective, CVD dropped to the third rank, following not only malignancy but also external causes of death (accidents, murder, suicide etc.). Premature CVD mortality in the Slovak population was about 30 % of all deaths in 2005.

References

1. Gerová Z, Panakova I, Matuskova M. Risk factors of cardiovascular diseases. Bratisl Lek Listy 1999; 100 (5): 231–237.

2. European Health for All Database, WHO Regional Office for Europe, Copenhagen, updated August 2009.

3. European Mortality Database, WHO Regional Office for Europe, Copenhagen, updated August 2009.

Received May 17, 2010.
Accepted July 30, 2010.

Address for correspondence: E. Ginter, DSc, Emeritus Senior Scientist at IKEM, Bratislava, Slovakia, ginter.emil@mail.t-com.sk

V. Simko, MD, PhD, Professor of Medicine, State University of New York, Downstate Medical Center at Brooklyn, USA. simko2@verizon.net