PHYSICIAN ASSESSMENT OF STROKE RISK IN HYPERTENSIVE PATIENTS IN THE MIDDLE EAST AND AFRICA: RESULTS OF THE ACTION SURVEY

Objectives: In the absence of reliable, contemporary national data, the ACTION survey was designed to: a) provide preliminary data on stroke risk in the MEA (Middle East and Africa); b) describe the contribution of specific cardiovascular risk factors; 3) assess blood pressure (BP) control.

Design and Patients: This was a multi-center observational study in nine countries in the MEA region. From 2003 to 2005, 562 physicians from a variety of specialties recorded observations of cardiovascular risk factors in 4,747 hypertensive patients, aged 54–80 years. The 10-year absolute stroke risk was calculated using a scoring system based on the Framingham Heart Study observations, and comparisons made with an age-matched cohort.

Results: The mean 10-year stroke risk was estimated at 22.7% and was significantly higher for men (25.4%) than for women (19.5%) \( P < .001 \) and for diabetics (28.2%) than for non-diabetics (19.4%) \( P < .001 \). Compared with an age-matched Framingham cohort, the estimated stroke risk in our population was almost double, and was significantly higher for females (212%) than for males (192%) \( P < .001 \). Hypertension, diabetes, left ventricular hypertrophy, and smoking were major contributing risk factors, as were physical inactivity and elevated cholesterol. Blood pressure was controlled in only 18% of the population and in 12% of diabetics.

Conclusion: Physicians of all specialties were willing to participate in stroke risk assessment. The risk of stroke in hypertensive patients in the MEA region is high, and is higher than would be predicted using Framingham data, particularly for females. Hypertension appears to be poorly controlled in more than 80% of hypertensive patients in the MEA region. (Ethn Dis. 2007;17:274–279)

Key Words: Stroke, Cardiovascular Risk Factors, Framingham Heart Study, Middle East, Africa

INTRODUCTION

Globally, stroke is the third most common cause of death and is the earliest and most devastating consequence of uncontrolled hypertension in adults. Elevated systolic blood pressure (SBP) is a leading risk factor for stroke; a linear relationship between stroke incidence and SBP has been demonstrated in several epidemiological and clinical studies. Most importantly, control of hypertension markedly reduces the incidence of stroke. Despite numerous epidemiologic studies on hypertension and stroke, contemporary data from the Middle East and Africa (MEA) remain sparse.

Physician assessment of absolute risk of stroke can and should play a central role in counseling and treating individual patients, particularly as they decide on the need and class of pharmacologic therapy. The ACTION survey was centered around the theme of physician involvement in data collection and risk assessment. Its specific objectives were to:

a) provide preliminary data on the risk of stroke in a sample of hypertensive patients from the MEA region;

b) describe the relative contribution of specific cardiovascular risk factors in stroke risk in this part of the world;

c) assess the percentage of patients with controlled blood pressure.

Our study also hoped to demonstrate the willingness of physicians in the MEA region to become involved in stroke risk assessment and the collection of multinational observational data from the region, which may identify areas of opportunity for improvement as part of an audit cycle.

METHODS

ACTION was an observational multi-center survey performed in nine

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