

The low prevalence of hypertension in Falkland Islands men

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SUMMARY. A morbidity survey in the Falkland Islands, conducted in 1979, showed that Falkland Islands men had a lower prevalence of hypertension than their counterparts in the United Kingdom. Such a difference was not found in women.

As a migrant population, Falkland Islanders are unusual in that they moved from a developed society to a more traditional setting. In men, but not in women, the change in environment led to a greater proportion of the population engaging in a high level of habitual physical activity and to a low prevalence of obesity.

These findings (based on ICD codes rather than BP measurements) are consistent with the hypothesis that such a change in lifestyle may have resulted in the lower population prevalence of hypertension observed in the morbidity survey, and the implications could be important for public health.

Introduction

A RETROSPECTIVE 12-month morbidity survey of residents of the Falklands Islands has recently been reported.¹ When data from the Falklands were compared with similar material collected in practices in the United Kingdom,² Falkland Islands men were found to have a lower prevalence of hypertension.¹ The purpose of this short report is to examine the finding in more detail and to discuss its possible implications.

Methods

At the time of the study, notes on all people who had sought medical attention were filed in the King Edward VII Memorial Hospital, Stanley. Examination of these files at the end of the study period enabled all health-related events during this time (1 January to 31 December 1979) to be recorded. One-year period prevalence rates for all diseases and conditions, classified according to the ninth revision of the International Classification of Diseases (ICD),³ were then calculated. Denominators for these rates were derived from the census conducted in November 1980, which recorded a total population of 992 men and 821 women.

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Table 1. The prevalence of hypertension per 1,000 population in the Falkland Islands and the UK practices by sex and age group.

Age (years)	Males			Females		
	<i>n</i>	Falklands	UK practices	<i>n</i>	Falklands	UK practices
0-4	71	0.0	0.2	69	0.0	0.2
5-14	164	0.0	0.1	156	0.0	0.1
15-24	146	0.0	0.5	115	0.0	1.0
25-44	317	0.0	6.1	226	11.3	8.1
45-64	211	9.5	33.6	166	60.2	46.1
65-74	58	34.5	56.6	50	140.0	86.6
75+	25	0.0	34.4	39	25.6	69.7
All ages	992	5.0	14.6	821	25.6	24.7

n = Number of persons examined in the Falkland Islands (all groups exceeded 3,000 persons in the UK practices).

As the Falkland Islanders are predominantly of British origin, rates were compared with figures reported from the second National Morbidity Survey in the United Kingdom.² This latter study classified diseases and conditions according to the eighth revision of the ICD.⁴ In this report, hypertension is regarded as rubrics 401-404 in either revision of the ICD. Only rubric 401 (essential hypertension) was recorded in the Falklands during the study period. Rates were standardized by the indirect method, using the total population of all UK practices in the RCGP second national study as the standard, and were compared using the Mantel extension of the Mantel-Haenszel procedure.⁵

Results

The population of the Falkland Islands was younger than that of the UK practices in both sexes. In almost all comparisons of specific conditions, standardized prevalence was very similar in the two populations. This was taken as evidence that study methods were comparable. An unexpected finding was the low standardized prevalence of hypertension in Falkland Islands men—5.5 per 1,000 population, compared with 16.9 per 1,000 population in the UK practices (Table 1). The Mantel-Haenszel estimate of the relative risk of hypertension in men in the Falklands was 0.37 (95 per cent confidence interval: 0.2-9.9)($\chi^2_{MH} = 4.7, P = 0.03$). Such a

situation was not seen in women, in whom rates were higher in the Falklands—32.7 per 1,000 population compared with 28.7 per 1,000 population in the UK practices, with a relative risk of 1.28 ($\chi^2_{MH} = 0.92$, NS).

In men, the age-specific prevalence of hypertension was lower in the Falklands in all age groups, though numbers were small, owing to the rarity of the condition. This was not the case in women, in whom the peak in prevalence was considerably higher in the Falklands. In both populations and both sexes, prevalence of hypertension was insignificant before the age of 25 years, rose to a peak in the 65–74 years age group, and then declined. In Falkland Islands males alone, prevalence was zero below the age of 45 years.

Discussion

The findings with respect to women suggest that under-recording of, or a failure to recognize, hypertension in the Falklands is unlikely to be the explanation of the low prevalence observed in men. The discrepancy between the sexes also eliminates from the list of possible explanatory factors certain environmental influences which are shared by both men and women—such as diet, social class, place of residence and climate.

There are, however, some notable differences in the lifestyle of Falkland Islands men, compared with British men, which are not shared by women. Most Falkland Islands women engage in domestic duties similar to those of their counterparts in Britain. However, compared with UK men, a much larger proportion of the male population in the Falklands engage in a high level of habitual physical activity, the dominant occupation being the farming of sheep over large areas of rough, roadless countryside. This active lifestyle is reflected in the absence of obesity in males, another finding of the morbidity survey.¹

The association between physical activity, obesity and blood pressure is not new, and migrant studies in other parts of the world have demonstrated that reduced physical activity, obesity and an increased prevalence of hypertension accompany migration from traditional to urbanized environments.^{6–8} As migrants, however, the Falkland Islanders are most unusual. Instead of migrating to a more developed society, they have moved to a more traditional setting. Herein lies the value of the study of blood pressure in this population. A large proportion of Falkland Islands men have lived a life incorporating important aspects of currently favoured public health theory concerning hypertension, thus providing an unusual opportunity to assess the efficacy of these concepts.

Limitations of the study—most particularly the lack of an *a priori* hypothesis, the isolation of one of many comparisons, the inability to directly examine the effects of obesity and physical activity, and self-selection (an inherent problem in most migrant studies)—demand caution in the interpretation of the findings. However,

the differences in the prevalence of hypertension between men in the two populations are substantial, and the low level of significance of the comparison is most likely due to small numbers in the Falkland Islands sample.

The results of the study do give tentative support to the notion that increased physical activity and reduced obesity may lead to a reduction in the prevalence of hypertension at a population level. This finding, if substantiated, could have important public health implications well beyond the shores of the Falklands.

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Infection from contaminated endoscopic equipment

The past decade has seen the development of an array of complex flexible fiberoptic instruments for gastrointestinal (GI) endoscopy, and an increasing use of these for diagnostic and therapeutic purposes. It has been recognized more recently that the use of contaminated endoscopic equipment can lead to serious and occasionally fatal infections. Infection with a wide variety of microorganisms has been reported following oesophago-gastroduodenoscopy (OGD) and endoscopic retrograde cholangio-pancreatography (ERCP).

Source: O'Connor HJ, Axon ATR. Gastrointestinal endoscopy: infection and disinfection. *Gut* 1983; **24**: 1067-1077.