

## EDITORIAL

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# Cardiovascular Diseases in Bahrain

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Ali A Murad, FAMS,MS,PhD\*

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The State of Bahrain has seen dramatic changes in its socio-economic status over the past few decades. This accounts for the great changes in patterns of health and disease in this small state.

I have focused attention on the problem of acquired cardiovascular diseases as these are now the leading cause of death, accounting for 32% of all deaths since 1982.

Though detailed epidemiological studies of the incidence, prevalence and risk factors of cardiovascular diseases have not been undertaken, it is still possible to gauge the enormity of the problem and its consequences from our limited hospital derived statistics. This is because the Salmaniya Medical Centre is the single largest referral centre on the island and is easily accessible to all people living here. All cases that are seen at peripheral health centres are also referred here, for specialised investigations and further management. Thus, as Bahrain has a centralised health service, it becomes relatively easy to gauge the problem from the statistics at our hospital.

With Bahrain becoming an affluent nation, we have seen marked changes in its socio-cultural pattern<sup>1</sup>. Perhaps nowhere is this change more obvious than in the gradual switch to a Westernised dietary style<sup>2</sup>. Calorie and cholesterol consumption has risen dramatically, to alarming proportions. This, combined with a more sedentary lifestyle, has contributed to an increasing incidence and prevalence of obesity, even morbid obesity<sup>3</sup>. As noted in other nations which have experienced a sudden affluence, the incidence of diabetes has increased markedly, touching 30% to 35% of the population. Insulin resistance and hypertension are also well known as major challenges of our time. Smoking has also become a common problem, with increasing numbers of people being drawn into the habit. The prevalence of smoking as judged from 1991 census data is 19.5% for Bahraini males and 6.1% for Bahraini females<sup>4</sup>.

With such a remarkable change in lifestyle and in cardiovascular risk factors especially, it is hardly surprising that the incidence and prevalence of cardio-vascular disease is on the increase<sup>5</sup>.

We have already witnessed a marked increase in the number of patients attending our hospital for cardiovascular problems. As recently as 1992, there were 1,029 new patients seen by the cardiology services, coming to a total of 12,111 patients. The number of fresh referrals has doubled to 2,083 in 1993, reflecting an increase of about 100%. It is also interesting to note that cardiology services account for 25.6% of all OPD services and are now the most frequently attended outpatient clinic. Similarly, cardiology accounts for 33% of all medical admissions to our hospital.

To study the problem further, I chose an area where most cases were represented, namely the Coronary Care Unit (CCU). There are seven beds in the CCU and the number of admissions per year has been about 700. This reflects an average of 100 patients per bed per year. This in turn represents a CCU stay of 3.5 days, a situation which could hardly be improved. Thus, although no increase in CCU admissions have been noted, it is not realistic to expect one, considering the maximum utilisation of the unit.

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\* Chairman & Consultant Cardiologist  
Department of Medicine  
Salmaniya Medical Centre  
State of Bahrain



However, if we look at the number of acute myocardial infarctions requiring thrombolytic therapy as a reflection of the number of acute myocardial infarctions that we see each year, we see a virtual explosion. The number of cases receiving thrombolysis increased from 59 in 1990, 118 in 1991, 145 in 1992 to 158 in 1993. This represents an increase of 267% in the last four years. The long term effect of these figures could be devastating, both to cardiac morbidity and to health costs, for a population which has a centrally funded health service.

In the CCU, acute myocardial infarction accounts for about 50% of all admissions, with an average mortality rate of 4.2%. Unstable angina and arrhythmias are the other significant reasons for admission to the CCU.

To analyse the spectrum of cardiac diseases in our population, one would notice that 60% to 70% of the admissions are due to ischaemic heart disease. In keeping with a developing nation status, Bahrain has a fairly high incidence of rheumatic heart disease, which still accounts for about 10% of all cardiac problems. However, this number has fallen in the past few years, consistent with the improvements in the standard of living and health care.

We therefore conclude that:

- i) the risk factors of cardiovascular disease have increased tremendously, in the form of obesity, diabetes mellitus, smoking, hyperlipidemia etc;
- ii) there has been a marked increase in cardiovascular morbidity.

We are still probably only seeing the tip of the iceberg. The implications of the statistics listed above will only become more apparent as time goes by.

Thus, with a view to primary prevention of cardiovascular disease, the following measures have been planned or initiated:

- A committee for deciding upon suitable programmes for the control of cardiovascular diseases was recently established by the Ministry of Health in Bahrain, in January 1993. The committee had fruitful meetings and workshops with Professor Jakko Tuomilehto, the WHO advisor from Finland, and Welsh group advisors.
- As the first step, a comprehensive epidemiological survey is being planned to evaluate the current levels of risk factors among the Bahraini population.
- As regards smoking, education through television, radio and newspapers advising against smoking, and a ban on smoking in public places such as hospitals, schools, government establishments and various clubs, has been implemented for many years.
- Health education is a top priority alerting people of the risk factors and how they can be minimised. This campaign has been well-organised and is being delivered to the public at large through the same media routes.

The road is long, but with the goals clearly set, we hope our efforts will go a long way towards bringing health and prosperity to the people of Bahrain.

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