

The management of hypertension in Fiji: is current practice effective?

RICHARD RIPLEY, BA, MBBS *

MAU IMO, BSc, MBBS *

DAVID PHILLIPS, FAFPHM, FACTM *

Introduction

Circulatory diseases are an increasing public health problem in Fiji, with the recorded growth being most marked over the last twenty years. Over the period 1985-1990 they were the principal cause of mortality, accounting for between 34% and 41% of all deaths, and the second or third most common cause of hospital admissions¹⁻⁵.

The risks factors for these diseases all are well established in modern Fiji^{6,7}. Local published and unpublished studies on hypertension have focussed mainly on prevalence data. Surveys have been carried out in Gau, Lakeba, Kadavu, Sigatoka Valley, Nauluvatu, Tamavua, Nabua and Samabula⁸⁻¹¹. The prevalence of hypertension in the populations studied ranged from 12 to 18%, most of these studies however, are at least ten years old. The most current estimate puts the prevalence at around 15%¹². The above studies, albeit limited in scope, show some general trends, namely, hypertension is more common amongst Indians than indigenous Fijians, urban rather than rural dwellers and females rather than males of both races.

The majority of local literature regarding the management and treatment of hypertension is again dated, reporting on the clinical outcome of differing drug regimes, predominantly in individuals with severe hypertension^{5, 9, 12, 13, 14, 15, 16}. The management of hypertension was considered by the N.C.D Task Force of Fiji in 1991 and guidelines published¹⁷. Despite knowledge of the extent of the problem, the increasing

availability and use of antihypertensive drugs, increasing publicity and awareness about risk factors and the need for life style change, the prevalence of both hypertension and it's associated risk factors, and the incidence of adverse outcomes are increasing.

The multifactorial nature of lifestyle factors makes simple explanations of behaviour change difficult; the impact of the active management of individuals with diagnosed hypertension should however be more easily assessed. This study examines the management of diagnosed hypertensive patients at the two principal levels of the health service system where they receive care, namely, health centres and the referral hospital (CWMH).

Methodology

The survey was conducted over a period of six weeks in September/October 1994. The sites were CWMH and three periurban health centres in the greater Suva area. Randomly selected patients attending hypertension outpatients at the above settings were interviewed using a structured questionnaire administered by two of the authors (MI and RR). Other relevant details were obtained from the clinic

records.

Results

The results are shown for the group as a whole and have not been disaggregated by site or other factors. Although one might expect the profile of patients at the referral hospital to be different either demographically or in terms of severity of hypertension or risk factors, this was not the case; it was therefore decided that the results best be displayed for the group as a whole.

Demography: Females outnumbered males 2:1. The majority of individuals (58%) were aged between 40 and 59 years at diagnosis with 23% being 60 years or over and 19% between 20 and 39 years of age.

“ Despite knowledge of the extent of the problem ... the prevalence of both hypertension and it's associated risk factors, and the incidence of adverse outcomes are increasing. ”

* Correspondence to Dr David Phillips, Fiji School of Medicine, Private Mail Bag, Suva, Fiji

Past Medical & Drug History: 70% of individuals had no previous medical history of note. Where there was such a history this was most commonly ischaemic heart disease or cerebrovascular disease.

Associated Risk Factors: Risk factors for both hypertension and associated diseases were present in 85% of the study group. The presence of risk factors did not vary by the severity of hypertension or gender. Lack of exercise was the most prevalent risk factor with 43% of the population denying any significant exercise, this is reflected in the 35% of the individuals being significantly obese. Twenty percent of the individuals were smokers and 40% had a positive family history of hypertension.

Severity of Hypertension: This was the blood pressure at the commencement of treatment as registered in the notes. The description is as per WHO guidelines. Forty two percent were defined as mild hypertension, 44% as moderate/severe hypertension with the remainder as borderline or isolated systolic hypertension.

Management: Overall 95% of patients received pharmacological management. Non pharmacological methods (e.g. weight reduction, smoking cessation) were advised in 83% of cases but there was no record of active intervention to facilitate this. The most commonly used drugs were diuretics and Methyl Dopa. The pattern of therapy at the hospital showed much greater variability than in the clinic setting with ten different regimes used for mild hypertension and nine for moderate/severe hypertension.

Effectiveness of Management: This was assessed by the change in two variables; blood pressure and weight. The average of these for the last three visits was compared with the initial recordings. BP showed a reduction from first attendance in 68% of cases, was static in 12% and increased in 20%; the goal of therapy was difficult to assess. Weight decreased in 49%, was static in 3% and increased in 48% of cases.

Compliance with and Side Effects from Drug Therapy: 77% of cases had good compliance whereas the remainder (23%) had poor compliance (self reported). Poor compliance here refers to patients omitting medication at least one day in a week. 15% of cases reported incidents of side-effects which were usually mild and non specific.

Discussion

Most patients in Fiji receive care free at the point of delivery in the public sector. Cardiovascular disease is estimated to cost \$3 million per year or 5% of the health budget in Fiji. The documented prevalence of hypertension and related risks factors for cardiovascular disease suggest that this burden could increase significantly. It would be important for planning to obtain more recent and robust data on the prevalence and distribution of these factors. It is therefore important that if we are spending money to prevent these diseases our efforts are effective.

This study, albeit limited in scope, indicates areas for further study. Notwithstanding, there would seem to be room for improvement in the status quo. The ratio of men:women receiving treatment at 1:2, in contrast to the cardiovascular

mortality data where the ratio is 3:1, suggests that there are a considerable number of men who have hypertension and other risk factors who remain undiagnosed or untreated. The prevalence of risk factors in the population as a whole and within this study population suggests that primary prevention efforts need to be increased. Moreover more intensive non pharmacological efforts would

seem to have been merited prior to the commencement of drug therapy in this group.

The significant variation in the drug management of individuals between the hospital and clinics reflects largely the wider range of agents available in the hospital setting. However the variations within the hospital setting merit further attention; a more structured approach, perhaps using guidelines may be beneficial both within the institution and perhaps within the population more widely. Increasingly guidelines are being seen as an important tool for rationalising behaviour and ensuring that when interventions are made, they are on the basis of the most cost effective intervention available within the resources of the institution or country¹⁸.

“ It would be important for planning to obtain more recent and robust data on the prevalence and distribution of these factors. It is therefore important that if we are spending money to prevent these diseases our efforts are effective. ”

References

1. Cassidy, J T. Differences in the incidence of certain diseases and their Manifestation among the two main races in Fiji. *Aust. N.Z. J. Med*, 1973; 2: 217.
2. Cassidy, J T. Diabetes in Fiji. *N.Z. Med. J*, 1967, 66: 167-172.
3. Hawley, T G. Cardiovascular Disease (Editorial) *Fiji Med. J*, 1970; 5(3): 3.

4. Bakani, IR. Acute myocardial infarction in Suva, Fiji. *N Z Med J*, 1975, 81(536): 288-292.
5. Ram P, et al. Hypertension. *Fiji Med J*, 1981; 9(4/5): 69-73.
6. Tuomileho J. et al. Cardiovascular diseases and diabetes mellitus in Fiji: analysis of mortality, morbidity and risk factors." *Bull. WHO*, 1984; 62: 133-134.
7. Ram BP, et al. Hypertension and diabetes in Gau Island. *Fiji Med. J*, 1983; 11(3/4): 35-38.
8. De Asa VC and Ram P. Treatment of Essential Hypertension. *Fiji Med. J*, 1981; 9(6/7): 107-112.
9. Munif M. and Ram P. Hypertension in Lakeba. *Fiji Med J*, 1986; 14(5/6): 142-144.
10. Ram BP and Ram P. Hypertension in Kadavu. *Fiji Med. J*, 1986, 14(5/6): 134-140.
11. Ram BP, et al. Hypertension and its correlates in Fiji: the results of the 1980 National Survey *Fiji Med. J*, 1982; 10(7/8): 99-105.
12. Ram P and Cornelius M. Ischaemic heart disease in Fiji. *General Practitioner*, 1994; 1: 6-10.
13. Ram P, et al. Hypertensive encephalopathy." *Fiji Med. J*, 1982; 10(3/4): 58-62.
13. De Asa VC, et al. The role of Chlorpromazine and Frusemide in the outpatient treatment of severe hypertension. *Fiji Med J*, 1982; 10(7/8): 113-114.
14. Parmam AS, et al. Nifedipine in severe hypertension. *Fiji Med. J*, 1983; 11(7/8): 113-115
15. Patel I.C. Chlorpromazine and Frusemide in the inpatient treatment of severe hypertension." *Fiji Med. J*, 1984; 10(5/6): 87-89.
16. Ram P, et al. Treatment of essential hypertension. *Fiji Med. J*, 1981; 9(6/7): 107-112.
17. Sorokin M, et al. *Guidelines for the Management of Hypertension*. Ministry of Health, Fiji 1991. National N.C.D. Prevention and Control Programme.
18. Mann JJ, et al. Guidelines for the detection and management of dyslipidaemia. *NZ Med J*, 1993; 106, 133-42. □

“ The multifactorial nature of lifestyle factors makes simple explanations of behaviour change difficult ... ”



National Diabetes Centre, Suva, Fiji

Photo courtesy Caines Jannif Limited