Vascular health risks in the Aboriginal community

A cultural approach

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BACKGROUND Diabetes, heart disease and other vascular diseases are a great problem in Aboriginal communities and there are many reasons for this. As a health professional it is easy to feel overwhelmed by both the magnitude of the problem and the feeling that it is just too hard when patients don't seem to take charge of their own health.
OBJECTIVE This article aims to outline the increased vascular disease and vascular risk factors in the Aboriginal community and explore some of the historical, socio-economic, cultural and genetic reasons for this. The barriers to health care and self management are discussed and some positive developments in the area of Aboriginal vascular health are noted.
DISCUSSION To improve health outcomes we need to focus on two parts of the same problem. First, we need to tackle the vascular diseases at their roots — the vascular risk factors. Second, we need to look at ways to promote self management so that our patients can identify personal barriers to self care and be partners in their health care. There is evidence that better organised systems of care, such as recall systems and improved screening systems, are very beneficial. The most successful interventions are culturally appropriate and developed and implemented with Aboriginal community control.

What is vascular disease and vascular risk factors?

Vascular disease comprises diseases of the heart and blood vessels including coronary heart disease, stroke, heart failure and peripheral vascular disease. Common types of renal disease, such as diabetic and hypertensive nephropathy, can also be considered as part of this group. Much of the morbidity and mortality from diabetes is due to vascular disease. Sometimes vascular disease as defined here is called 'macrovascular disease' to distinguish it from 'microvascular disease', the diabetes specific complications due to small vessel involvement.

The vascular diseases we see affecting Aboriginal people too often and too early are like the tip of the iceberg — underneath are the hidden but dangerous vascular risk factors,[1] and that is where we need to concentrate our efforts in order to improve health outcomes (*Figure 1*).

The high burden of vascular disease in the Aboriginal community

It is well known that Aboriginal Australians have worse health than non-Aboriginal Australians. Aboriginal Australians develop chronic disease at an earlier age and die much earlier than non-Aboriginal people. In the period 1991–1996, life expectancy at birth for non-Aboriginal people was 75.2 years for males and 81.1 years for females. By contrast life expectancy at birth for Aboriginal people was 56.9 years for males and 61.7 years for females.[2]

The vascular diseases are a major part of this difference in health outcome. In one analysis of data from Western Australia and the Northern Territory, it was calculated that circulatory disease accounted for 26% and diabetes 10% of 'excess' deaths in the Aboriginal population (ie. the difference between observed deaths in the Aboriginal

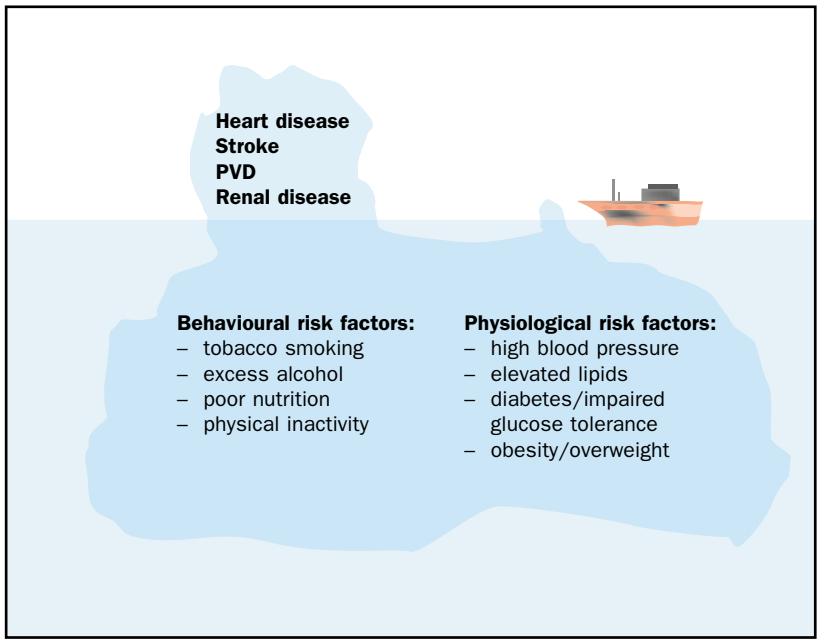

Figure 1. Vascular disease is just the tip of the iceberg — we need to concentrate our efforts at the underlying vascular risk factors to achieve the best health outcomes

Case history

Ray, an Aboriginal man aged 38, has had diabetes for six years. He really only comes to the doctor when he gets boils, a recurrent problem, and does not comes back for routine diabetes care. He will usually take metformin as prescribed after each of these visits but only till the initial script runs out. He has not kept his appointments with the diabetes educator or the ophthalmologist.

During a home visit Ray tells the Aboriginal health worker that at the age of 50 his father was admitted to hospital for complications of diabetes. He had his leg amputated during that admission and died six months later. It becomes clear that the fear of this happening to him is a major barrier to his health care and through health education and goal setting his diabetes self management improves.

Table 1. Prevalence of risk factors for the indigenous and non-indigenous populations, 18+ years

Risk factor	Indigenous (%)	Non–indigenous (%)	Rate ratio
Current smokers	51	23	2.2
High risk alcohol use*	21	8	2.6
Obesity†	28	18	1.6
Diabetes	5.1	2.2	2.3
No physical activity††	40	34	1.2 *

*Proportion among those who reported any recent alcohol use.

† Based on measured height and weight, age standardised to the 1991 Australian population.
The comparison is for indigenous and all Australians.
Rates for current smokers, high risk alcohol use, diabetes and no physical activity have not been age standardised due to insufficient sample size.

†† Relates to leisure time physical activity.

Notes: Rate ratio = indigenous/non-indigenous rate.

Acknowledgment: National Health Priority Area. *Cardiovascular Health Report*, Department of Health and Aged Care, 1999

population and that which would have occurred if non-Aboriginal death rates had applied).[3]

All the major cardiovascular risk factors are higher in the Aboriginal than the non-Aboriginal population (*Table 1*). There is also an increased prevalence of the 'insulin resistance syndrome' (central obesity, impaired glucose tolerance, hypertension and dyslipidaemia) in Aboriginal people,[4] which delivers a nasty packet of risk factors all at once. Not surprisingly then, Aboriginal people have a greater burden of diabetes and vascular disease at a younger age. In the 1995 National Health Survey, reporting of diabetes was 7–8 times higher in Aboriginal people than non-Aboriginal people aged 25–44 and 45–55 years. Hypertension was reported by 33% of Aboriginal people aged 45–54 as opposed to 14% of non-Aboriginal people in that age group.

Why is vascular disease more common in Aboriginal people?

As well as a genetic predisposition to vascular disease[5] there are many cultural, historical, environmental and socio–economic factors contributing to the increased vascular risk, diabetes and vascular disease in the Aboriginal population (*Figure 2*).

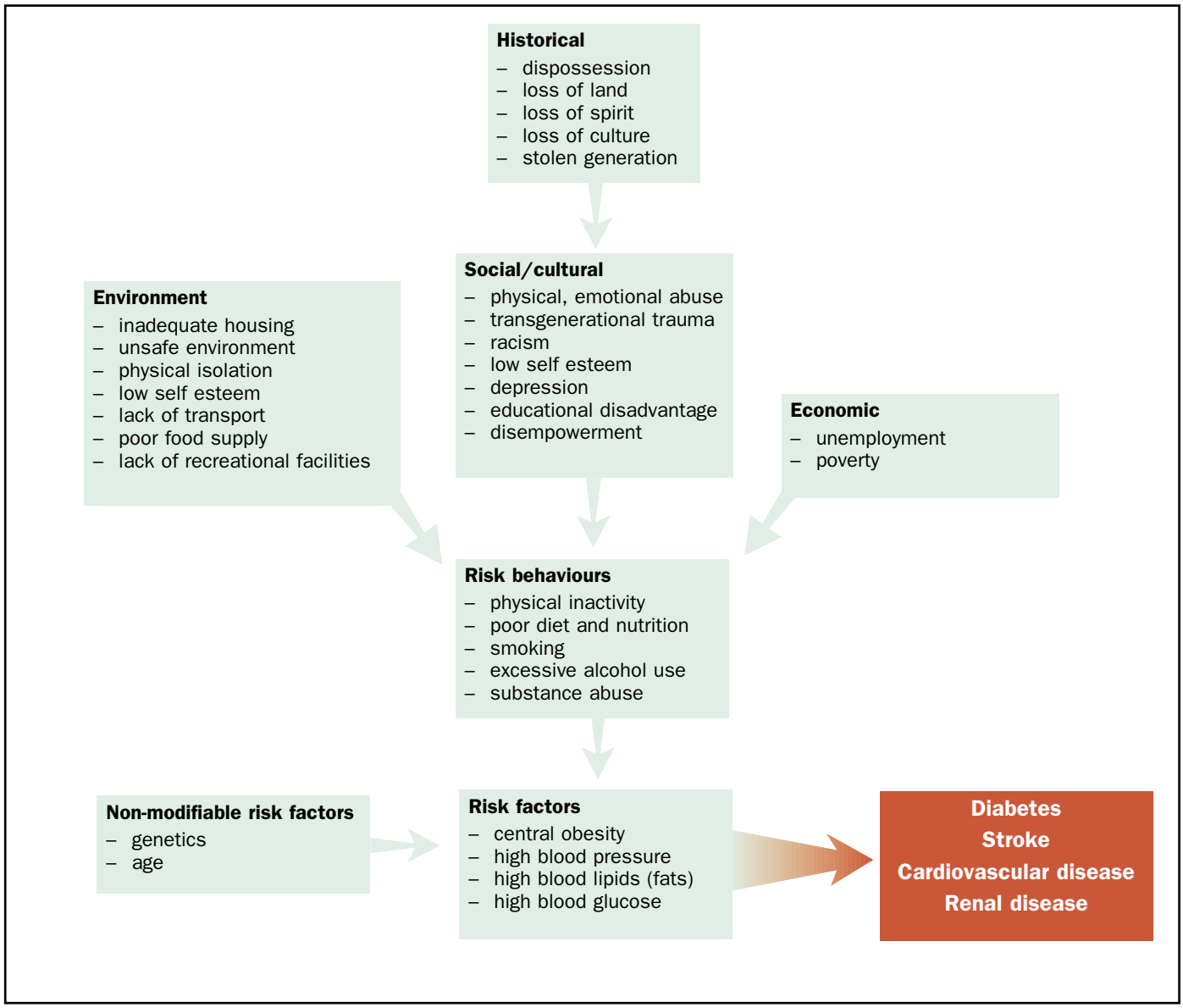

Figure 2. Factors contributing to diabetes and cardiovascular disease in Aboriginal and Torres Strait Islander people (source: Margaret Scott, Aboriginal Vascular Program, NSW Health, 2001).

Barriers to health care and self management

These factors are also in many cases barriers to care, and they explain why it can seem to GPs that some of their Aboriginal patients do not take charge of their own health and become 'self managers'. Sometimes it is individuals who have this problem, and sometimes it can seem like the whole community is suffering from a lack of confidence in their ability to look after their own health.

We must be careful not to feel personally discouraged by a patient's 'noncompliance', and approach this as a medical issue in itself. The term 'noncompliance' is in fact offensive and paternalistic when viewed in the light of all the barriers to self management that we know exist — and the others we can only guess at.

Self management requires a broad range of health, lifestyle, self assessment and treatment behaviours by the individual. They need to take on a partnership role with healthcare providers, with shared decision making and goal setting (*Table 2*).

The Aboriginal view of health and illness

The Aboriginal view is that physical health and psychological health are entwined through life. Health is not just the physical well being of an indi-

vidual but refers to the social, emotional and cultural well being of the whole community.[6]

Illness is often born stoically for some time before medical care is requested. Unfortunately the poor state of Aboriginal health since white settlement has led to most Aboriginal people having seen close relatives and friends suffer poor outcomes from their diabetes and cardiovascular disease such as amputated limbs, renal failure and early death. This can lead to a belief that the disease outcome and course cannot be influenced by self management, and in fact that medical care will bring on the inevitable (Case history). Initial diagnosis can be delayed because of fear. Compliance with medical advice and medication regimens can be compromised.

Table 2. Concepts of self management

Self management involves:

- engaging in activities which promote health
- managing chronic conditions by monitoring signs and symptoms
- managing the effects of a chronic condition on personal wellbeing and interpersonal relationships
- following a treatment plan
- making informed choices
- practising new health behaviours
- working collaboratively with health providers through shared decision making and goal setting, with a mutual understanding of roles and responsibilities

Acknowledgment: Flinders Coordinated Care Training Unit Partners in Health Program, 2001

Relationships with health professionals

I sometimes think we can overwhelm our patients with all the negative messages we give them. Some time after I started working in Aboriginal health, I realised I was giving my diabetic patients a stream of negative messages about their lifestyle, control of their health, even their genes, every time they ventured to see me. It is amazing anyone felt brave enough to come back at all.

Aboriginal people can be sensitive to criticism about their lifestyle and can interpret even standard medical history taking as judgmental. Doctors working in Aboriginal health sometimes feel there is also less blind agreement to the doctor's advice. This is understandable in view of the historical and cultural background to the medical consultation.[7] If we have achieved a good reputation in the Aboriginal community we work in, or are endorsed by an Aboriginal health worker or Aboriginal medical service, this no doubt healthy scepticism can be decreased.

Figure 3. Healthy eating and cooking program for mothers and infants. There is evidence that intrauterine and infant malnutrition predisposes to increased vascular risk factors in later life.[13]

Figure 4. Joyce Davison, Healthy Heart Aboriginal health worker at Daruk Aboriginal Community Controlled Medical Service, screening for vascular risk factors at a camp for Aboriginal elders.

Access to culturally appropriate health care

Improved health outcomes for chronic conditions such as diabetes and cardiovascular disease may have as much to do with access to processes of care as it does with change in clinical practice, particularly in indigenous populations. Analysis of cultural barriers to Aboriginal people accessing services is under-researched but a recent review concluded that cultural barriers are possibly the most important barriers of all (this can include factors as simple as making the environment and language of the consultation welcoming to an Aboriginal person) and culturally appropriate services involve community control.[8] Distance from medical services, and transport and financial issues also act as barriers to health care.

Positive developments

- Recognition by public health authorities and funding bodies that 'evidence based medicine' in indigenous communities involves improved primary health care, and in particular better organised systems in the community for delivering care.[9] For example:
  - something as simple as a recall system has been shown to improve health outcomes[10]
  - institution of improved screening systems and use of treatment algorithms in a community controlled setting provided impressive evidence of decreased renal and cardiovascular disease among the Tiwi islands population.[11]
- Partnership agreements between Aboriginal community controlled organisations and Area Health Services and government bodies are becoming increasingly common and have the effect of promoting community participation and improved cooperation between different health providers, independent of personalities.
- The use of the enhanced primary care Medicare items for GP consultations can help with the increased time required to manage Aboriginal patients with chronic disease, and recognises the time spent by GPs liaising with Aboriginal health workers and other health workers.
- The Aboriginal Vascular Health Program in NSW was established in July 2000 to address the prevention and management of vascular diseases in Aboriginal people. Increased access to care, early detection, development of standardised evidence based care protocols and self management initiatives are key focus areas.
  - There are a series of funded demonstration site Aboriginal vascular health projects. Projects include culturally appropriate screening and health promotion activities and diabetes camps (*Figures 3, 4*).
  - An 'Aboriginal vascular health network' of health professionals with an interest in Aboriginal health has been set up.
  - Improved resources and training for Aboriginal health workers are being set up.
- Chronic disease self management programs (*Table 2*) for use in Aboriginal communities are being developed. As a population, Aboriginal people are very appropriate for programs that aim to work on both the psychological and physical facets of health. As they have worse baseline health, more barriers to care and more likelihood of an unequal role in the health professional–patient relationship, it is no surprise that early results using this approach in indigenous communities in the Eyre peninsula have been promising.[12]
  - Daruk Aboriginal Community Controlled Medical Service is currently working with the Flinders Coordinated Care Training Unit on a system of interviews conducted by Aboriginal health workers and GPs with the aim of developing patient focused care plans. The framework is based on cognitive behavioural techniques to identify personal barriers to self care and promote realistic goal setting (Case history).

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SUMMARY OF IMPORTANT POINTS

- Vascular disease is responsible for a high proportion of the earlier death and chronic disease suffered by Aboriginal people.
- We need to focus on the underlying vascular risk factors:
  - behavioural: smoking, poor nutrition, alcohol overuse, and
  - physiological: hyperlipidaemia, hypertension, diabetes and impaired glucose tolerance, obesity.
- There are historical, socio–economic, cultural, environmental and genetic factors behind the increased vascular risks, and these factors are also barriers to reducing these risks.
- Evidence based medicine in indigenous communities involves improved primary health care, and in particular better organised systems in the community for delivering this care.
- There is scope for culturally appropriate chronic disease self management programs to improve the management of vascular disease in Aboriginal communities.
- The most successful interventions are developed and implemented with Aboriginal community control.