

Salt and other enemies

About 16 years ago I was invited abroad to give a lecture on hypertension. Another visiting professor spoke on renal failure. As I have a plaque hanging in my office commemorating my lecture on renal failure, I assume that he has one on his wall on hypertension. At the time our host said nice things as he introduced me as a hypertension "expert." But then, as an afterthought, he added that of course most doctors were experts anyway, because they all treat hypertension.

He probably was right. Except that here, in this inner city hypertension belt, we would undoubtedly win by sheer weight of numbers. We see people with hypertension everywhere, in huge numbers, on the wards, in the emergency room, in dialysis units, in outpatient clinics. In my 25 year old hypertension clinic six nurse practitioners see patients morning and afternoon five days a week. Every Tuesday afternoon we triage up to 100 new patients, many of whom had been prescribed medicines they could not afford--calcium channel blockers at \$2 (£1.40) a tablet or converting enzyme inhibitors. By contrast, older antihypertensive agents such as diuretics or β blockers would have cost them one to ten cents a tablet.

Yet even at \$2-3 a day many of these patients (including those with diabetes) remain uncontrolled. This is largely because their doctors have been brainwashed into not using diuretics, and because in high salt eaters antihypertensive therapy without diuretics tends not to work.

Salt, indeed, is the enemy in the inner city. It comes in ham, potato chips, and greens, in enchiladas, salsa, and beans. Many of our patients never cook, but eat out and live on processed foods. Obesity is epidemic, sometimes grotesque, frequently starts in the teens; is largely intractable to treatment, counseling, or bullying; and contributes to salt retention. Many patients are not only intractable salt eaters but also so exquisitely sensitive to salt that you can tell which one ate pizza or pork the night before. For treatment they all need diuretics, but frequently also a sympathetic blocking agent such as methyldopa and especially clonidine.

Visitors from abroad are often surprised to find that we still use such large quantities of these out of fashion drugs. Yet in small doses clonidine is usually quite well tolerated; and in larger doses, in combination with a vasodilator, especially minoxidil, it is our life saving remedy when everything else has failed. Clonidine is also a favorite with our large number of cocaine users, who often swallow it by the handful. In them, as in our laboratory rats, clonidine not only controls their hypertension but also their cocaine induced tremulousness and agitation. All this, for cocaine as for salt sensitivity, has much to do with the sympathetic system, a relation that has been much studied but remains incompletely understood. Yet it is clearly relevant to the treatment of hypertension in these difficult patients, who all too often are not amenable to counseling or attempts to modify their behavior