

Coitus and coronaries

Few physicians even mention sexual activity to their patients with coronary heart disease, let alone give advice on this sensitive topic. There are reasons for this omission: the doctor may be unaware of the cardiovascular effects of sexual intercourse and prefer to ignore the matter in the hope that the patient will sort things out for himself; or, as is probably more often the case, he may not have made provision for private discussion with his patient.

What advice should be given to these patients? Data have been published on the effect of sexual intercourse on healthy volunteers, some of which—notably those of Masters and Johnson¹—have been criticised because of the artificial atmosphere of the laboratory; but more recently monitoring by electromagnetic tape has minimised interference and made it possible to record volunteers having sexual intercourse in the privacy of their own bedrooms—the so-called “sexercise” tolerance test.² The results of both research methods have confirmed that sexual intercourse culminating in orgasm may cause transient tachycardia, hypertension, and hyperventilation in both sexes. Heart rates of 180 per minute with increases of as many as 100 beats per minute in as little as one minute have been recorded³; systolic blood pressure may rise by 120 mm Hg^{1 4 5} with diastolic pressure increases of up to 50 mm Hg.^{1 5} Pressures in the region of 230/130 mm Hg have been recorded at orgasm in normotensive individuals,⁵ but both heart rate and blood pressure fall rapidly to precoital levels after orgasm. Hyperventilation also occurs, with respiratory rates as high as 60 per minute.³ Electrocardiographic abnormalities have not been observed in normal men and women during intercourse.⁵

But what of the patient who has had a myocardial infarction? Sexual activity declines with age, but more so in patients with heart disease. Impotence has been reported after myocardial infarction,⁶ but is probably uncommon.² In one study of patients with ischaemic heart disease almost half developed symptoms during coitus—most commonly awareness of rapid heart action and angina pectoris, but rarely of sufficient severity to force termination of the act; ECG changes were common, and the heart rate during coitus averaged 120 beats per minute for 10 to 15 seconds. Nevertheless, comparison with exercise equivalents for the maximal heart rates during intercourse suggested that the oxygen cost to the heart was little more than that incurred by mild exertion.² Such conclusions should, however, be viewed with caution, as the emotional influences in sexual intercourse are absent in ordinary exercise. Sudden deaths do occur during or shortly after sexual intercourse, but usually in clandestine circumstances such as the bordello or the mistress's boudoir, or when the relationship is between an older man and a younger woman—or are these the ones that make the news? In one series 0.6% of all sudden deaths were attributable to sexual intercourse and in about half of these cardiac disease was present.⁷

And so back to the question of what advice should we give the patient. On the information available it is not possible to lay down rules: every case should be considered on its own merits. Firstly, the effects of coitus on the heart should be explained to the patient and if possible to the spouse. Clearly it is undesirable that the patient with coronary heart disease should achieve the haemodynamic heights attainable in youth, and most couples will be able to enjoy sexual fulfillment without engaging in intense arousal. Abstinence from intercourse is probably advisable for one month after

myocardial infarction, but the period will depend on the patient's progress, which may be quantitatively assessed by exercise testing. Improvement in physical fitness by exercise may improve sexual performance,² and if symptoms do occur during coitus treatment with beta-adrenergic blocking drugs may be helpful and will minimise the rise in blood pressure and heart rate without much altering the quality of orgasm.⁸ Certainly understanding attention from the doctor will do much to help the patient, and definitive guide lines will no doubt emerge as this neglected aspect of coronary heart disease is further studied.

¹ Masters, W H, and Johnson, V E, *Human Sexual Response*. Boston, Little, Brown, 1966.

² Hellerstein, H K, and Friedman, E H, *Archives of Internal Medicine*, 1970, **125**, 987.

³ Bartlett, R G, *Journal of Applied Physiology*, 1956, **9**, 469.

⁴ Fox, C A, and Fox, B, *Journal of Reproduction and Fertility*, 1969, **19**, 405.

⁵ Littler, W A, Honour, A J, and Sleight, P, *Journal of Reproduction and Fertility*, 1974, **40**, 321.

⁶ Tuttle, W B, Cook, W L, and Fitch, E, *American Journal of Cardiology*, 1964, **13**, 140.

⁷ Ueno, M, *Japanese Journal of Legal Medicine*, 1963, **17**, 330.

⁸ Fox, C A, *Journal of Reproduction and Fertility*, 1970, **22**, 587.

Curability of breast cancer

The natural history of breast cancer is not known for certain. Unfortunately, doubt remains on the two issues critical for assessing the impact of treatment on breast cancer: is the disease inevitably fatal without treatment; and is there an identifiable group of women treated for breast cancer whose survival characteristics are identical to an age-matched control group? These considerations are discussed in some detail at p 439 by Mr M Baum, who points out that his arguments are not academic: they are directly relevant to the clinician in the day-to-day management of patients with breast cancer. If, as seems the case, local treatment alone benefits only 25 to 30% of the most favourable cases, then logically all patients presenting with clinically detectable disease should be assumed to have systemic spread when planning treatment.

Further support for this view comes from a recent report by Mueller and Jeffries.¹ They studied the cause of death and the rate of dying of a large unselected population with breast cancer collected from the Syracuse Cancer registry, the Ontario Cancer Treatment Research Foundation, and the National Cancer Institute. In all cases treatment was considered an integral part of the course of the disease. After an initial rapid mortality rate in the first three years women then died at a constant rate which could be expressed as a single exponential function, with 8% of those at risk dying in each year, resulting in a 50% mortality at 5.9 years. Over 80% of women with breast cancer were likely to die of the disease; and only in those women who were over the age of 70 at diagnosis did the proportion of deaths due to competing risks exceed those due to the cancer.

The importance of this study is that it shows the true overall picture of the mortality risks for carcinoma of the breast, whereas the survival of patients entered into clinical trials for “early” disease indicates only that rigid selection of biologically favourable cases of breast cancer gives an unwarranted optimistic picture of the problem as a whole. If the disease were being cured one would expect the annual mortality rate eventually to parallel that in the normal population, but this cannot be shown to have occurred