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The Risk of Coronary Heart Disease: a Study of the Relationship between Vigorous Exercise in Leisure Time and Other Risk Factors. D. G. CLAYTON, L. M. EPSTEIN, and J. N. MORRIS (*Medical Research Council Social Medicine Unit, London School of Hygiene and Tropical Medicine*)

A Comparison of Some Aspects of Patterns of Living before and after Myocardial Infarction. J. MCEWEN (*Medical Sociology Unit, Dundee University*)

A study was carried out in Dundee to ascertain the 'normal' pattern of recovery following a first myocardial infarction in men under 60 years. Health, social activities, exercise, smoking, and aspects of work before the infarction and six months after it are compared.

In more than 50% there had been some evidence of preceding illness, usually non-specific, although 10% had a history of angina: 31% had been attending their general practitioner. Only 25% were completely free from symptoms after the infarction: 60% were still on treatment and there was continuing use of the general practitioner services; 37% had decreased their social activities and 41% their physical exercise. With regard to smoking, 34% had stopped, 14% were smoking the same, 4% smoking more, and 46% had decreased. Failure to stop smoking was most marked in the age group 40-45 and in social classes IV and V.

There was evidence that 28% had found difficulty with their work before the infarction. Although 77% had returned to work by six months, a quarter of those at work were having difficulties with it; 45% were working shorter hours per week than before; the decrease was most marked among those in heavier jobs.

Methods of Analysis of Symptom Patterns. D. J. P. BARKER and M. J. GARDNER (*Division of Community Medicine, University of Southampton*)

In the Birmingham region the follow-up system for thyrotoxic patients treated with radio-iodine includes a postal questionnaire which elicits symptoms of hypothyroidism. In a pilot study carried out in 1968-69, 263 questionnaires were received from patients, of whom 48 were subsequently shown to be hypothyroid. From 1969 to 1972 a further 754 questionnaires were received from patients, of whom 56 were shown to be hypothyroid.

These data have been used to explore statistical methods which may be effective in classifying questionnaires into hypothyroid and euthyroid groups, according to the presence or absence of symptoms. The techniques examined include looking at all possible questionnaire responses separately, nearest neighbour analysis, stepwise analysis of symptoms, combinations of symptoms, linear discriminant analysis, multiple logistic analysis, and the number of symptoms itself. Each technique was used to produce a referral rule in one of the two sets of data (1968-69 or 1969-72), and the effectiveness of this rule was then assessed by application to the other set of data. The number of symptoms seemed to give a slightly better basis of assessment than the more sophisticated methods used.

Effect of Cone Biopsy of the Uterine Cervix on Subsequent Reproduction and Outcome of Pregnancy. PAULINE ROGERS, HAZEL BECH, and JOCELYN CHAMBERLAIN (*Department of Public Health, London School of Hygiene and Tropical Medicine*)

As the cervical cytology screening service expands there is likely to be an increasing number of women of child-bearing age being subjected to cone biopsy of the cervix. The study was designed to discover the effect of the operation on subsequent reproductive performance. Women were admitted to the study if at the time of their first positive smear they were married, aged less than 35, had two or less children, and had no gynaecological complaint.

Two hundred and eighteen women were identified retrospectively from the records of eight cytology laboratories. The hospital case-notes of these women were examined and information was recorded about the cone biopsy and about their obstetric and gynaecological history both before and after the operation. Fertility rates after cone biopsy in the study population were compared with national rates for women of similar age and parity, and the outcome of pregnancies after cone biopsy was compared with overall national figures.

Preliminary results suggest that cone biopsy has little effect on women's future fertility, but the operation may possibly lead to an increased rate of premature births and a greater number of Caesarean sections.