neural-tube defects. This is not a new suggestion. Of great relevance is the recent work of E. G. Knox on the possible relationship with anencephalus of more than a hundred different foodstuffs. Data on their consumption in England and Wales by yearly quarters in the years 1961–7 were correlated with quarterly anencephalus rates, with due allowance for gestation length. Far from confirming the potato hypothesis, a negative temporal correlation with old potatoes was found. The strongest associations were found with bread, cereals, ice cream, canned peas, and cured and canned meat products. Other correlations were evident with these meat products. Thus, those regions of England and Wales with the greatest intakes of cured meats had the highest anencephalus rates, while a drop in the sale of corned beef after the Aberdeen typhoid outbreak was followed six months later by the lowest anencephalus rates on record. In addition, the estimated intake of nitrite-cured meats over a nine-year period showed a remarkably close correlation with anencephalus rates. Interestingly, nitrates and nitrites used to cure meats are known to produce nitrosamines by bacterial digestive processes at least analogous to the curing process, and these are teratogenic in certain mammals. Knox is cautious in interpreting these results, but his conclusion that certain food additives and their associated processes deserve further investigation should be followed up.

The case against the potato is far from compelling. Nevertheless, it has been argued that when a theory suggests a simple preventive measure against such major malformations the proper reaction is to apply the measure and test the theory in practice. Against this it can be said that strong dietary advice may encourage obsessive feelings and neurotic overconcern, not to mention guilt if the advice is not religiously followed. Most, however, would support on general grounds the statement by Sir Keith Joseph in the Commons that “it is always wise to discard any potatoes that are diseased, decayed or discoloured and to cut away any damaged portions.” Until a trial or other appropriate work has provided more conclusive evidence, the theory can be explained to women with an affected child who are planning another pregnancy so that if they wish they can avoid potatoes completely until they become pregnant and the fetus is at least two months old.

New Follow-up of Hydatidiform Mole

From 1 January next year all obstetricians will be able to ask for measurements of human chorionic gonadotrophin in any of their patients who have had hydatidiform mole. A scheme has been devised by the Department of Health and Social Security and the Royal College of Obstetricians and Gynaecologists to register such patients and to follow them up over a two-year period with serial estimations of urinary gonadotrophin levels.

In Britain probably about 800 women are seen with hydatidiform moles every year. Fortunately most of these (probably about 90%) have no serious sequelae, even though the continued excretion of chorionic gonadotrophin for weeks or months after the uterus has been evacuated indicates that viable trophoblastic elements often persist for some time. In a small percentage of patients, however, more serious forms of invasive mole or choriocarcinoma occur. The problem is to identify those who require special treatment from those who do not and to make this distinction not later than six months after evacuation of the mole—for patients treated within this time with the best chemotherapeutic methods available are virtually all cured. If treatment is delayed longer than six months, it may fail and the frequency of failure increases with the delay.

Some patients require urgent treatment even within a few weeks of evacuating a mole, either because invasive mole threatens to perforate the uterus or because of bleeding or of metastases that have developed. In a few patients generalised dissemination of a choriocarcinoma may occur soon after evacuation of a mole. In these cases also careful and frequent measurements of the levels of human chorionic gonadotrophin provide an early warning system.

The paper at p. 715 of this week’s B.M.J. by Dr. J. Crawford highlights some of the important aspects of following-up patients who have had hydatidiform mole. Though “pregnancy tests” have been used since the classical studies of Zondek in the late 1920’s, and have often given valuable information, it is now recognized that these are quite inadequate for follow-up. Radicimmunoassays are about 100 times more sensitive than pregnancy tests—whether immunological or biological—and their sensitivity is essential to detect the presence of many latent choriocarcinomas. Nevertheless, such assays are economic only when they are performed on a relatively large scale, so that it is logical to centralize the facilities and to back them up with a clerical service which can ensure that follow-up failures are minimized.

In the new scheme patients will be registered with a central laboratory, and with the tumour registry which has been kept for several years by the Royal College of Obstetricians and Gynaecologists. The laboratory will send the patient the necessary instructions and requisites so that she can return a small aliquot from a timed and measured 12-hour specimen of urine in a reply prepaid box. The result of the assays will be sent within 72 hours to the referring obstetrician, and, if requested, also the general practitioner. Assays will be done frequently until normal levels of luteinizing hormone are attained, and then monthly up to 12 months after evacuation of the mole and three-monthly during the second year of follow-up.

A follow-up service for patients from whom a hydatidiform mole has been removed has been provided for several years by the Department of Medical Oncology at Charing Cross

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2 Renwick, J. H., British Journal of Preventive and Social Medicine, 1972, 26, 78.
3 Renwick, J. H., New Society, 1972, 22, 212.
8 Rogers, S. C., Health Trends, 1972, 4, 52.
12 Renwick, J. H., Lancet, 1972, 2, 967.
13 Record, R. G., British Journal of Preventive and Social Medicine, 1971, 15, 93.
16 Moses, B. J., Medical Officer, 1964, 112, 79.
17 Ward, I. V., and Irvine, E. D., Medical Officer, 1961, 106, 381.
22 Knox, E. G., British Journal of Preventive and Social Medicine, 1972, 26, 219.
24 Hansard (House of Commons), 23 October 1972, col. 189.

1 Renwick, J. H., British Journal of Preventive and Social Medicine, 1972, 26, 67.
2 Renwick, J. H., British Journal of Preventive and Social Medicine, 1972, 26, 78.
3 Renwick, J. H., New Society, 1972, 22, 212.
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12 Renwick, J. H., Lancet, 1972, 2, 967.
13 Record, R. G., British Journal of Preventive and Social Medicine, 1971, 15, 93.
16 Moses, B. J., Medical Officer, 1964, 112, 79.
17 Ward, I. V., and Irvine, E. D., Medical Officer, 1961, 106, 381.
22 Knox, E. G., British Journal of Preventive and Social Medicine, 1972, 26, 219.
Hospital (Fulham), and to provide a nation-wide service the load will now be shared by laboratories at the Jessop Hospital at Sheffield and in the University of Dundee. It is not, of course, intended that the assay service should replace local follow-up in any way. Clinical examination remains important, particularly in the first few months of follow-up and monthly chest x-ray examinations are advisable as long as the gonadotrophin values are abnormal.

As well as providing information to enable the clinician to manage these cases better, the registration scheme should also yield valuable information about various aspects of hydatidiform mole. More information is needed about the risk of choriocarcinoma after subsequent pregnancies and there is a case for further radioimmunoasays at this time. Dr. Crawford refers to the question of whether there is any risk from the use of oral contraceptives in these patients, and here also registration should provide much needed evidence.

Obviously, the success of a centralized follow-up service will depend on the patients' co-operation. This is more likely to be achieved where the need for follow-up has been carefully explained, and the contribution of the obstetrician to the success of the scheme will be critical. The main results of the scheme should be to ensure that deaths from choriocarcinoma which develops as a complication of hydatidiform mole are eliminated. Another important feature is that the scheme is probably the first large-scale biochemical screening for any form of cancer. Whether screening for cancer in a general sense will ever be possible or desirable is a question for the future, but almost certainly similar screening programmes for other risk groups will follow.

1 Delfs, E., Annals of the New York Academy of Sciences, 1959, 80, 125.

Anorexia Nervosa in Males

Though the syndrome of anorexia nervosa characteristically occurs in young females, occasional examples of a similar condition affecting males are met with in clinical practice. How the male syndrome should be classified is controversial. Whereas some authors maintain that anorexia nervosa is never found in the male, largely on the grounds that amenorrhea is an essential criterion for the diagnosis, others claim that anorexia in the male is invariably secondary to other psychiatric disorders.

In a recent paper P. J. V. Beumont, C. J. Beardwood, and G. F. M. Russell do much to elucidate this problem. They begin by setting out diagnostic criteria for anorexia nervosa. In summary these are behaviour aimed at inducing weight loss, morbid fear of gaining weight, and an endocrine disturbance manifested in females as cessation of menstruation. These authors point out that the rigid application of amenorrhea as a diagnostic criterion would exclude not only males but also pre-pubertal girls from consideration. They prefer to seek evidence of an analogous endocrine dysfunction in males who display the first two criteria.

Applying these criteria to 250 supposed male cases in the literature Beumont and colleagues are able to accept only 25 as probable cases of anorexia nervosa. To these they add six cases of their own. The clinical picture which emerges is of an onset in late childhood or adolescence, often in someone who is overweight. Refusal of food is often rationalized on the grounds of constipation or abdominal discomfort, and some patients show odd behaviour such as purgation, vomiting, unusually strenuous exercise, and clandestine disposal of food. Obsessional rituals and sexual immaturity or loss of libido are also described. Precipitating factors include fears or conflicts about sexuality, overenthusiastic dieting, and chance remarks about being overweight. The close resemblance to the syndrome in females is obvious.

These authors extended their study into the endocrine field by examining urinary excretion of testosterone in six patients and urinary total gonadotropic activity in three patients. Both indices gave subnormal results when the patients were emaciated, as in earlier reports, with a return towards normal levels after proper feeding. These findings parallel those in female patients with anorexia nervosa, in whom urinary total gonadotropic activity and oestrogen levels are consistently low in the emaciated stage. However, the endocrine disturbance in females, which affects the rhythmical release of gonadotrophins, appears to be largely independent of the nutritional state. The observations of Beumont and colleagues, though not conclusive, suggest that in males the endocrine abnormality is more directly related to the level of nutrition. Further endocrine studies are needed, but these authors have clearly shown that the clinical picture of anorexia nervosa in the male closely resembles that in the female.

Osteoarthrosis and Fractures of the Upper End of the Femur

For an elderly person a fractured neck of femur is quite often a death sentence. The patient, usually a woman, moves around her house or flat with gradually diminishing activity as the years pass, managing her affairs with increasing difficulty but coping with them reasonably well. Spending a week away from home with her devoted family, she trips across a rug, cat, or dog, and the accident occurs. Within a few weeks she may have died of cardiac failure, hypostatic pneumonia, thromboembolic disease, or simply as a result of hospitalization, for the elderly do not transplant well or adapt readily to new surroundings.

Osteoporosis increases steadily in the spines of the elderly as they advance in age. It affects women more than men, and it has commonly been noted in patients who suffer fracture