influenced by the modified psychoanalytic approach of Balint, which has helped understanding of the doctor-patient relationship but done less for problem management.² More exciting have been the newer approaches of clinical psychology, medical counselling, behavioural nurse therapy, and medical hypnosis.^{3,6} These treatments are brief and aim at changing the thoughts and behaviour of the patient.

But who does what best, for what type of problem, and in what setting? These questions cannot be satisfactorily answered. Some treatments are offered by many different groups—for example, effective behavioural exposure treatment for phobias may be offered by psychologists, psychiatrists, nurses, counsellors, or general practitioners themselves.⁷ The eventual source of treatment depends less on clinical policy and more on the patchy availability of local resources. Patients should, however, be told which treatments are part of the NHS and are not confined to private practice.⁸ It is difficult to know whom to refer patients to, particularly as many fringe treatments of dubious value are available. Clinical psychology is a well defined professional branch of a respected scientific discipline, but as yet it has no established register of qualified practitioners. Within the NHS applicants for posts are carefully vetted and an appointment implies suitable qualifications and experience, but in private practice no such automatic safeguards apply. The definition of psychotherapist is even less clear: again no register exists, and endless arguments about the value of training and the effectiveness of treatment have bogged down the Rugby conference that has been discussing this issue for some years.

Giving patients clear guidance on the effectiveness of different treatments is difficult. The effectiveness of behavioural treatment for phobic, obsessive-compulsive, sexual, and habit problems is beyond doubt.⁹ And clinical evidence and some research trials also suggest that effective treatments are available for depression,¹⁰ anxiety,¹¹ and various physical problems.¹ Among other approaches Rogerian client orientated counselling, Kelly's personal construct therapy, and Berne's transactional analysis have their enthusiasts, but with many treatments—including psychoanalysis—there is little experimental evidence of effectiveness.

Three things will help the general practitioner in this confusion. Firstly, he should have a good knowledge of local resources, and a telephone call to the district clinical psychologist will lead to an understanding of the local policy for dealing with referrals from general practice. Secondly, he must understand in outline the type of treatment likely to prove effective in particular common problems; he can obtain this by discussion with experienced practitioners, often NHS clinical psychologists, or by reading.^{6,12} Thirdly, he will find useful a knowledge of the addresses of national organisations such as the British Psychological Society (St Andrew's House, 48 Princess Road East, Leicester LE1 7DR), the British Association for Counselling (37A Sheep Street, Rugby CV21 3BX), and the British Society of Medical and Dental Hypnosis (PO Box 6, Ashted, Surrey KT21 2HJ), all of which will provide general practitioners with information about qualified practitioners in a particular geographical area.

Finally, those who wish to increase their own skills could attend the various courses run by organisations such as the British Postgraduate Medical Federation (33 Millman Street, London WC1N 3EJ) and the British Association for Behavioural Psychotherapy (Dr John Gardner, Honorary

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Runners' anaemia: a paper tiger

Extremely well trained athletes often have haemoglobin concentrations at the lower end of the normal range or 5-15 g/l below it.^{1,2} Continual hard physical training also seems to produce a tendency to iron deficiency^{3,5}; the serum ferritin concentrations of athletes tend to be low, and they are likely to have reduced bone marrow iron stores. In one study the haemoglobin concentration of athletes was raised by treatment with iron.⁵ Athletes may also have occult blood in their faeces from gut ischaemia, and haemoglobin in their urine from intravascular haemolysis. It has been thought that these blood losses might cause the low haemoglobin concentration in athletes. Should, therefore, determined athletes and even joggers be routinely screened for low haemoglobin concentrations and treated with iron when necessary?

The answer is no. In most of these athletes the blood findings that suggest anaemia have alternative explanations. The low haemoglobin concentration of athletes reflects changes in the circulating red cell mass and in plasma volume; as in pregnancy, total body red cells are increased but are diluted by a proportionately greater increase in plasma volume.^{3,6} Hallberg and Magnusson have assessed these changes caused by vigorous and prolonged exercise and have inferred that oxygen availability per unit volume of blood is increased in athletes because of rises in 2,3 diphosphoglycerate concentration in the red cells.^{7,8} As in prepubertal children, this optimises oxygen transport from blood to the tissues. The low haemoglobin concentration seen in athletes is thus usually of no pathological importance, although an athlete may—just like anybody else—have a serious cause for his anaemia.

The reduction in serum ferritin concentration seen in some athletes has been explained by iron stores shifting from reticuloendothelial tissues to extramedullary sites, especially in the liver.⁴ Direct evidence of liver iron stores in athletes is not available to support this hypothesis, but the shift is postulated to arise from hepatic uptake of haemoglobin-haptoglobin complexes formed during slightly increased intravascular red cell lysis in stressed tissues, such as

muscles, and in the soles of pounding feet. The slightly increased blood loss in stools seems to be of no clinical importance in most athletes,⁹ but we should be cautious because of sporadic cases of excessive faecal blood loss associated with marathon training.¹⁰⁻¹² Some of these cases, particularly those accompanied by abdominal pain, vomiting, or frank blood in the stools, need investigation as in any patient. Sometimes a sinister cause will be found. Often the bleeding may be the result of the athlete taking analgesics before the race,¹²⁻¹⁴ a practice that should be condemned.

Athletes in training do not thus need any routine clinical or haematological monitoring or any iron supplementation. The athletes and others who are at risk of iron deficiency anaemia include those with gastrointestinal symptoms, those complaining of blood loss, those who abuse analgesics, and those who are vegetarians.

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Benign testicular tumours

Traditionally some 95% of solid testicular swellings are held to be malignant. Nevertheless, it has been suggested that benign testicular tumours may be more common than suspected, most of the patients reported having had granulomatous orchitis, tuberculosis, or epidermoid cysts.¹ Is it really possible, then, to differentiate benign testicular swellings from malignant tumours preoperatively and avoid orchidectomy for benign disease?

Several features may raise the clinical suspicion of testicular malignancy. Three quarters of testicular cancers occur in those aged between 20 and 49²; almost a tenth occur in undescended testes, even after orchidopexy^{3,4}; and one in 20 occur in patients who have a contralateral tumour.^{5,6} Testicular tumours are also commoner in patients who are infertile or have gonadal dysgenesis.^{7,8} Clinical investigations may not help in determining the nature of a solid swelling. Scrotal ultrasound is at least 80% accurate in showing the site of origin of a swelling in the scrotum⁹ but may not reliably tell us whether a swelling is malignant even if the testicular architecture is abnormal. Though raised concentrations of

tumour markers in the serum (such as α fetoprotein and β human chorionic gonadotrophin) suggest neoplasia, normal values do not exclude it.

Most surgeons have condemned needle biopsy of solid scrotal swellings because of the risk of tumour implantation.¹⁰ Usually the surgeon has to decide the fate of the testis at operation. All solid scrotal swellings in which malignancy cannot be excluded should be explored through an inguinal incision and the spermatic cord temporarily occluded before mobilisation of the testis: exploration through the scrotum is justified only if there is no suspicion of malignancy.¹⁰ Between a quarter and a third of testicular tumours are erroneously explored through the scrotum, with the result that the inguinal, perineal, and pelvic regions may become infiltrated by a tumour, a development that is incurable with conventional treatment.¹⁰

Operative biopsy of the testis may also be unhelpful because of "sampling error," in which the tumour is not accessed; indeed, benign lesions may coexist in the testis with unrecognised malignant areas.¹¹ Even splitting the testis into two (Chevassu's manoeuvre) may not help in identifying a benign tumour, though the procedure is useful when exploring a solitary testis.¹² The only totally reliable method of excluding malignancy is to examine the entire testis histologically and this requires orchidectomy. Some urologists have gone on record as saying that orchidectomy is mandatory for all suspicious scrotal swellings and that there is no place for biopsy.¹³

Hence there is no reliable way to determine whether an intratesticular lesion is benign and can be enucleated without orchidectomy. The current trend towards improved screening and self examination of the genitalia means that surgeons will be faced with increasing numbers of undiagnosed scrotal swellings.¹⁴ Most of these patients will rightly be treated with inguinal orchidectomy, and inevitably testes will continue to be removed for benign disease. Some would regard this as a crime; the greater crime, however, is to leave behind a scrotal scar and a testis containing a malignant tumour.

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