

also less than normal, so that the patients develop hyperglycaemia. With replacement of the pancreatic enzymes digestion returns to normal, as does release of gastric inhibitory polypeptide and, in turn, the secretion of insulin, so that intolerance to glucose disappears.<sup>21</sup> More severe disease of the exocrine pancreas is associated with structural, as well as functional, abnormalities of the islets, ranging from hyperplasia to sclerosis,<sup>7</sup> with corresponding functional changes which may extend to destruction of hormone-secretory capacity. This secondary damage to the islets has been assumed to be due to "inflammation" or ischaemia, but the topic requires further study.

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## Fractures of the carpal scaphoid

Generations of casualty officers have been warned to be wary of the fractured scaphoid. It is, indeed, the quiet fracture and may cause problems, especially if the injury is mismanaged.

Scaphoid fractures take a long time to unite, and delayed union and even non-union are not uncommon. Avascular necrosis occurs, and secondary degenerative osteoarthritis may follow with all the attendant pain and loss of wrist function.

The scaphoid may be fractured by minimal trauma—a fall on the outstretched hand—and may cause the minimum of symptoms and signs. In fact, these may be so trivial that the injury may be dismissed as a simple strain. This is the major pitfall: the wrist is rarely if ever strained. All such "strains" must be assumed to be a fracture until proved otherwise. Even radiography is not as reliable as usual. The standard views are not adequate. Four views at least are needed: posteroanterior, lateral, and one each in 45° of supination and pronation—and even these do not always show the fracture.

The wrist is fractured in several ways, the fall on the outstretched hand being the commonest. In the days when cars were cranked by hand a backfire was another frequent cause. The injury also occurs in victims of road accidents, and as such patients frequently have other, more spectacular injuries the fracture of the scaphoid is often overlooked.

The patient generally presents with pain and stiffness in the wrist and local swelling and tenderness in and around the anatomical snuff box. Radiographs generally show up the fracture; but if they do not any patient with these symptoms and signs should be treated as if there is a fracture for at least two weeks, when repeat x-ray films should confirm or disprove the presence of the injury.

The fracture occurs in three main sites in the bone—the distal pole, the waist, and the proximal pole. Healing of injuries of the distal pole is the most rapid, and of those of the proximal pole the slowest. In one-third of patients healing is further complicated by an anatomical quirk of the blood supply. These patients have scaphoids whose arterial supply enters the bone only through the distal pole, so that fractures of the waist or proximal pole are very likely to be followed by avascular necrosis of the bone proximal to the fracture. This appears in an x-ray film as a relative increase in density of the affected area. The white appearance is, in fact, due to the surrounding bone having lost mineral after injury while the avascular area has retained it. Eventually the affected part crumbles, and later osteoarthritis is inevitable. Nevertheless, provided that the fractures are detected 95% of them heal when treated with simple plaster-of-Paris fixation, plastering the arm from the distal palmar crease to the elbow and including the thumb to beyond the metacarpophalangeal joint. The exact position of the thumb is not now regarded as critical, but Watson-Jones instructed that the patient should be able to hold a wine glass between the index finger and the thumb.

What about the remaining 5% of patients? They should be treated symptomatically. A patient with an ununited but symptom-free fracture requires no treatment. If he or she suffers pain or weakness in the wrist the fracture can be fixed internally with a screw or graft, or either the proximal pole or the whole bone can be excised. If severe osteoarthritis has supervened arthrodesis affords the best chance of a pain-free, useful wrist.

Leslie and Dickson have recently reported a prospective study of 222 patients with fresh fractures of the scaphoid.<sup>1</sup> The fracture occurred mainly in men—190 of the series—and the commonest age group was 15-29. Time lost from work is important in this group, but unfortunately it is also the group with the worst fractures, which are slowest to unite. Many of the fractures slow to unite were those caused by the worst violence. Most fractures were visible in the first x-ray films. The senior house officer saw the fracture in 95% of cases; when

these were reviewed by the authors 98% were detected. These results led the authors to question the policy of applying plaster-of-Paris to the wrists of patients with pain after injury when the radiographs show no fracture. They suggest that the fractures that are missed are incomplete fractures and that these heal well anyway. They had a 5% incidence of non-union; all such cases were in men, with a mean age of 22.

Leslie and Dickson's paper confirms the findings of others in showing that the outlook for this fracture is not as bad as was thought at one time. They also reaffirm that surgery is rarely necessary provided that the fracture is immobilised for the appropriate length of time and that displacement does not occur. Immobilisation for a maximum of 12 weeks is now regarded as adequate. If union has not been achieved by that time the patient's wrist should be mobilised. If it is pain free no further action is required, surgery being required only for pain. Union may eventually occur in about a year in the pain-free wrist which is mobilised.

Teaching dogma about immobilisation of injured wrists need not, however, be revised. Doctors in accident departments need firm guidelines. All patients who have injured their wrists and are tender in the anatomical snuff box should be regarded as having fractured their scaphoid until proved otherwise. This may require the wrist to be plastered for two weeks, the plaster being removed then and radiography repeated. Quite reasonably, patients do not like being told that a fracture has been "missed," especially if there are late complications. Patients do understand and appreciate caution—even if it requires the inconvenience of plaster-of-Paris for two weeks.

<sup>1</sup> Leslie IJ, Dickson RA. The fractured carpal scaphoid. Natural history and factors influencing outcome. *J Bone Joint Surg (Br)* 1981;**63B**:225-30.

## Undergraduate medical education in genitourinary medicine

Since the early 1950s the number of new cases registered at clinics for genitourinary medicine or sexually transmitted disease in Britain has increased fourfold. While syphilis has remained uncommon the frequency of gonorrhoea increased dramatically during the 1960s and early 1970s but then levelled off with a peak of almost 66 000 new cases in 1971.<sup>1</sup> Substantial rises have also occurred in the numbers of cases of non-specific urethritis in men and so-called non-specific genital infection in women. High though the prevalence rates may appear they are lower than in many other countries. Another problem has been the development of antimicrobial resistance in gonococci and the appearance of totally penicillin-resistant  $\beta$ -lactamase-producing gonococci. These were first reported in 1976. Only 31 isolates were reported in 1978, but 104 were recorded in 1979 and 210 in 1980—a remarkable increase.<sup>2</sup>

These figures form a sombre background to a recent survey of the teaching of genitourinary medicine to undergraduate medical students in Britain.<sup>3</sup> Teachers in 26 of the 30 medical schools completed a self-administered questionnaire. All schools provided lectures, the number varying from one to 16, nine having four or fewer lectures and 12 having five or fewer lectures with attendance varying from fewer than 20 up to 260

students. In four schools the teachers of genitourinary medicine had no courses of their own, merely contributing lectures to other courses. This restriction, which none of them wanted, greatly limited the scope of their teaching and was apparently due to lack of time. Attendance at an out-patient clinic is a vital part of training, reinforcing the theoretical knowledge, showing the student how to take a sexual history, to manage patients, and especially providing an understanding of sexual behaviour. Attendance varied from one or two hours to a maximum of 40 hours with a mean of 10. In 70% of the schools only one student was allocated to each doctor. Three schools provided audiovisual teaching material, and most offered electives. The mean total teaching time (lectures plus clinical attachment) was 15 hours; despite the increasing clinical case load, this shows little change from the mean total teaching time of 19 hours in 1966.<sup>4</sup> In half the schools there was some form of assessment at the end of the course and questions were included in the final MB examination paper at some time; only two schools had examiners on genitourinary medicine in the clinical or oral final examination.

These findings should prompt deans of all medical schools to review the time and facilities for teaching undergraduate medical students, especially in those schools without courses in genitourinary medicine. Greater emphasis on the sexually transmitted diseases in final examinations would provide greater stimulus to learning. The crucial question, however, is how well undergraduate training equips young doctors to manage patients with suspected sexually transmitted or allied diseases. Undergraduate instruction must state the principles, which include accurate diagnosis using clinical examination and laboratory investigation, effective treatment, careful follow-up to ensure cure, and rapid, accurate contact tracing. It is the application of these principles that has kept prevalence rates relatively low in Britain. Doctors must also be prepared to counsel their patients on sexual and social problems.

Fortunately Britain still has the best open-access nationwide free clinic service in the world. Patients present themselves, are referred, or attend after contact training. Clinics are supervised by consultants who work whole time in the specialty. There will always be a few patients who wish to be treated by their NHS general practitioner or privately, and a few non-specialists who wish to treat patients for sexually transmitted diseases. At present in Britain the demand for these services is small—and most non-specialist doctors realise the difficulties of practising to the high standards of the clinics. Nevertheless, undergraduate training must provide a sound foundation for all doctors to know when to suspect sexually transmitted diseases, which may impinge on so many general and specialist medical disciplines. Older doctors, as well as the new generation, need to realise that the old stigma-ridden VD clinic has been replaced by a modern department, often called a department of genitourinary medicine to help to remove past prejudices.

<sup>1</sup> Anonymous. Sexually transmitted disease surveillance 1979. *Br Med J* 1981;**282**:155-6.

<sup>2</sup> Communicable Disease Surveillance Centre.  $\beta$ -Lactamase producing gonococci—July-December 1980. *Communicable Disease Report* 1981; No 5.

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