Correspondence

We welcome letters to the Editor concerning articles which have recently been published. Such letters will be subject to the usual stages of selection and editing; where appropriate the authors of the original article will be offered the opportunity to reply.

Letters should normally be under 300 words in length, double-spaced throughout, signed by all authors and fully referenced. The edited version will be returned for approval before publication.

Transpedicular lumbosacral fixation for non-traumatic disorders

Sir,

The recent paper in the March 1997 issue by Pihlajamäki, Myllynen and Böstman on the complications of transpedicular lumbosacral internal fixation has, like many others, not discussed two variables which have an important bearing on the outcome of spinal fusion.

1) There is clearly an optimal degree of lordosis when standing, although this varies considerably from person to person (Constant, unpublished data). Failure to recognise and incorporate a lordosis appropriate to an individual’s balanced posture may be a cause of persisting back pain, perhaps due to an overcompensation at adjacent segments for an inappropriate position of fusion. In Figure 6, judging by the alignment of the broken screws, it seems that the posture of choice, regained after the screws had broken, is more lordosed than that originally produced by the surgery.

2) The integrity of the supraspinous ligament complex and its reattachment to spinous processes are important for controlling the vertebrae. This ligament is often no more than a 0.5 mm wide on each side and is often destroyed during spinal surgery. It is not unusual to see it become ‘bow strung’ dorsal to the spinous processes, with a curious “valley between two ridges” visible under the incision scar. This loss of control on each segment may add to the complications and morbidity after operation.

Displacement of the dorsal vertebral muscles from their natural gutter by the pedicular screw apparatus should also be considered as a serious disadvantage of the system.

J. P. DRIVER-JOWITT, FRCS
Newlands
Cape Town, South Africa.


Author’s reply:

Sir,

We thank Dr J. P. Driver-Jowitt for his interest in our paper. We are aware of the potential importance of restoring natural lordosis at the level of fusion. Preoperative extension-flexion radiographs were used to give the surgeon an idea of the required lordosis in each case. During operation, the degree of lordosis was assessed and adjusted according to the information obtained using the C-arm of the image intensifier in a horizontal position to give a lateral view of the lumbar spine. In this study we did not measure the degree of lordosis after operation. We knew, however, on the basis of a previous study of 63 cases of posterolateral fusion with transpedicular fixation, that disc degeneration above the level of fusion was not a problem, and that attempts to reduce spondylolisthesis with transpedicular fixation were of no value, since the maintenance of an achieved reduction was low.

We agree that the surgeons involved in the operations probably ignored the supraspinous ligament complex during the fusion. In addition, 39 patients with stenosis of the spinal canal at the level of the fusion had concomitant decompression laminectomy, which makes it impossible to preserve this ligament complex.

H. PIHLAJAMÄKI, MD, PhD
Helsinki University Central Hospital
Helsinki, Finland.


Pain levels after total hip replacement

Sir,

We read with interest the paper in the January 1997 issue entitled ‘Pain levels after total hip replacement’ by Britton et al. The use of a subjective pain score was advised to help to predict the need for revision arthroplasty. We agree that pain is often a dominant feature in patients who need this procedure, but there are many reasons for revision, and failure of the cup accounts for a considerable proportion. Hozack et al found that ten years after the primary procedure 13.7% of patients had acetabular demarcation associated with migration of the socket of 5 mm or more, which is usually asymptomatic.2,4

Pain is rarely a feature of a ‘failed’ socket. DeLee and Charnley assessed pain levels using the Merle d’Aubigné and Postel system and found no difference between radiologically secure and demarcated cups. Those with migration had only marginally lower pain scores. The use of pain scores as predictors excludes this large group. Close observation of these asymptomatic patients is essential to ensure timely intervention before eventual severe loss of bone stock renders revision difficult or impossible.

A. K. GAMBHIR, FRCS
D. H. SOCHART, FRCS
Central Manchester Healthcare Trust
Manchester, UK.

Valgus-extension osteotomy for advanced osteoarthritis in dysplastic hips

Sir,

In our paper we demonstrated that pain was better than radiological assessment in predicting the subsequent need for revision. Pain has a higher correlation with patient opinion and can be assessed simply and cheaply using a postal questionnaire. We believe that it should be the main measure of outcome.

In order to decide whether patients should have regular radiographs of their hips after arthroplasty the reasons for revision must be considered. The main indication is pain and these patients can be identified easily. There is, however, a small number who are virtually asymptomatic but have substantial bone destruction. Although the results of revision are generally better if little bone has been lost, excellent results can be achieved in substantial lysis by, for example, impaction grafting. We are not aware of any studies of this asymptomatic group which compare the long-term results of early revision with conservative treatment and subsequent revision if the patients become asymptomatic.

At present we do not believe that it is necessary to have routine radiographs on asymptomatic hips to identify the few with substantial bone loss. This has the additional benefit of avoiding inconvenience and risk to the patient and will result in a substantial cost saving.

D. W. MURRAY, MD, FRCS Orth
Nuffield Orthopaedic Centre
Oxford, UK.

Author’s reply:

Sir,

We thank Dr Cooney for his interest in our paper and appreciate his comments.

The principle of early mobilisation after stable fixation of intra-articular fractures is not new, and has many advantages. This can be applied to scaphoid fractures and our results justify this approach. We did not observe failure of fixation with early mobilisation and this is recommended provided that stable fixation has been achieved at surgery. Inability to accomplish this indicates a failure of technique. If a cast is to be used for up to two months we doubt that there is any advantage in using our technique rather than simple fixation with Kirschner wires.

We do not object to the use of a removable splint for protection, provided that the patient can exercise the joint or return to suitable work. We are not aware, however, of any evidence which shows that this assists with revascularisation. Indeed, our impression is that this assists with revascularisation. Indeed, our impression is that the reverse is true. Early mobilisation may lead to a higher incidence of problems with the scar.

We agree that any evidence of screw loosening is an indication for reoperation. Only when fixation remains stable do we recommend close observation in the belief that late union may still occur without the risks involved in further surgery.

Provided that they have not developed osteopenia as a result of prolonged immobilisation, patients with type-D2 and type-D3 scaphoid nonunion usually have excellent bone stock (sclerotic bone) for rigid fixation. Many acute fractures do not come to surgery for several weeks when osteopenia is already present.

E. GOTOH, MD
Asahikawa Medical College
Asahikawa, Japan.

Herbert screw fixation of scaphoid fractures

Sir,

In their article in the July 1996 issue entitled ‘Herbert screw fixation of scaphoid fractures’ Filon and Herbert provided an excellent overview. We agree that internal fixation is an essential part of the treatment of most acute displaced fractures of the scaphoid and of displaced nonunion, but do not agree that mobilisation may safely begin two weeks after operation as suggested by these authors. We believe that a cast or splint is required for six weeks after fixation of acute displaced fractures and for two months after grating for nonunion to encourage revascularisation.

We also believe that patients with asymptomatic nonunion with stable fixation should undergo further operation before there is loss of fixation and alignment.

We will agree that nonunion of D2 and D3 fractures has a worse outcome than that of stable nonunion. Carpal instability and osteopenia may be present, and a combination of compression screws and Kirschner wires in addition to the required cortico-cancellous bone graft may be needed. Immobilisation in a thumb spica cast followed by appropriate splinting is required until tomography shows clear evidence of solid union.

W. P. COONEY, MD
Mayo Clinic
Rochester, USA.


Authors’ reply:

Sir,

We thank Mr Benson for his comment on our article. Our experience has indicated to us that the operation is best carried out in patients with an arc of flexion of 60° or more. Some of our patients experienced restriction of adduction after the procedure, but this was restored with active exercise by six months after the operation.

We perform the osteotomy through the middle of the lesser trochanter. The distal part of the trochanter and the shaft are displaced laterally. We encountered some technical difficulties using an AO blade plate and now use a hook plate.

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Supplementary fixation with Kirschner wires is then used, with protected postoperative mobilisation designed to reverse the osteopenia without overstressing the repair.

We believe that the use of plaster after successful internal fixation of the scaphoid should be avoided if possible. Rapid restoration of function and early return to work are important goals in the management of these difficult fractures.

T. J. HERBERT, FRCS, FRACS
S. L. FILAN, BA, MA
St Luke’s Hospital
Sydney, Australia.

Fracture on removal of the ACE tibial nail

Sir,

The article by Takakuwa et al.1 in the May 1997 issue entitled ‘Fracture on removal of the ACE tibial nail’ addresses a clinical situation in which the selection of the diameter of the nail and the amount of reaming may affect the outcome. The authors advise caution and patience in the removal of slotted tibial nails which have a distal bend.

In the four problem cases presented, the extent of the reaming performed before insertion of the nail is not discussed. We need to know how much reaming was undertaken and the relationship between the diameter of the tibial canal and that of the selected nail. Since all the failures occurred on the posterior aspect of the tibia details of the minimal thickness of the cortex at the site before and after reaming are needed.

Use of ACE tibial nails of larger diameter is more prevalent in Japan than in Europe and the USA, despite the relatively small stature of the Japanese population.

The ACE tibial nail was developed to incorporate improved biomaterials and design in order to enhance the strength so that the need for intramedullary reaming was minimised and fracture healing rates improved. The purpose of the distal bend and slot is to improve the ease of entry and to reduce the risk of fractures during insertion.

We feel that in the four problem cases presented in this article, technique-related issues need to be clarified. The techniques used for reaming and selection of the diameter of the nail in the cases reported need further discussion.

G. SOHINGEN
Vice-President Research and Development
ACE Medical Company
El Segundo
California, USA.


Author’s reply:

Sir,

I have reviewed the radiographs which were taken before and after the original operations to evaluate the amount of reaming performed, with particular attention to the posterior cortex. In no case did reaming appear to be excessive. An accurate measure of canal diameter, however, cannot always be achieved on plain radiographs and ideally, the amount of reaming would best be determined by comparison of appropriate CT scans. Unfortunately, this method of comparison was not available to us.

Since, however, we have always used the same technique for reaming the tibia it is difficult to imagine that we have used an incorrect method only with ACE nails, since we have experienced no similar complications with other products in the past. There were no cases in which excessive force was used to introduce the reamer into the canal. In retrospect, some of the fractures could probably have been treated effectively with titanium nails of the smaller diameter of 8 or 9 mm and this option should have been considered.

We must also consider whether it is necessary to remove the reportedly biocompatible titanium alloy implants at all, although the long-term effect of leaving this material in the body remains unknown.

Our aim was to warn surgeons of the possible complications that can arise from incorrect selection of the implant and timing of removal of the nail. We are still using the ACE 8 and 9 mm nails since we believe that they provide easy insertion and high strength.

M. TAKAKUWA, MD
Higashi Hokkaido Hospital
Hokkaido, Japan.

Rotator-cuff tear of the hip

Sir,

I read with interest the article by Bunker, Esler and Leach1 in the July 1997 issue entitled ‘Rotator-cuff tear of the hip.’ I reported five patients with disruption of the abductor tendon of the hip in May 1995 at the meeting of the Association of Bone and Joint Surgeons in Indianapolis, Indiana.2 I presented a further follow-up at the Florida Orthopaedic Society Meeting in December 1995,3 and had a poster exhibit at the 64th Annual Meeting of the American Academy of Orthopaedic Surgeons in San Francisco in February 1997.4

Bunker et al state that since there was no impingement at the hip there was no pain. These tears, however, can cause symptoms of lateral hip pain. MRI may show fluid within the trochanteric bursa, as well as degenerative changes within the tendons of gluteus medius and minimis. Surgical exposure must include the proximal aspect of the greater trochanter. I have repaired tears in seven patients using non-absorbable sutures via both transosseous drill holes and suture anchors. At a follow-up of from four to 58 months, all had successful results. Rotator-cuff tears of the hip do occur in younger patients, can cause symptoms, and can be successfully repaired.

A. KAGAN II, MD
A. Kagan Orthopedics and Sports Medicine
Fort Myers
Florida, USA.


Author’s reply:

Sir,

We are grateful for Dr Kagan pointing out that he reported tearing of the ilio-tibial band, not the abductor mechanism, in 1995, and we cede primacy in this matter to him. Our Medline search was performed when we first submitted our paper to the Journal in 1993. We were asked to do a prospective study to establish the incidence of this condition, but I failed to run a further Medline search when the paper was resubmitted three years later.

It is astonishing that both of us noted the similarity of this hip
condition to tearing of the rotator cuff in the shoulder, to such an extent that we gave our papers similar titles.

I do not agree with Dr Kagan, however, that impingement against the iliotibial tract is the cause of this lesion since, in our experience, the early smaller tears are ‘interstitial’ or deep surface tears. We feel that the aetiology is probably failure of the tendon fibres rather than impingement, particularly as tears in our series were related to age. We would expect the early lesion to be on the superficial surface if impingement were the cause. In the shoulder we are beginning to understand that cuff tears may be caused by tendon fibre failure, traumatic avulsion or impingement, and perhaps this is true of the hip as well.

T. D. BUNKER, MCh Orth, FRCS, FRCS Ed
Princess Elizabeth Orthopaedic Hospital
Exeter, UK.

The behavioural response to whiplash injury

Sir,

In their paper in the July 1997 issue of the Journal entitled ‘The behavioural response to whiplash injury’ Gargan et al. question the effect of litigation on the outcome of symptoms ascribed to ‘whiplash injuries’. They suggest that the behavioural response shown by many of their patients became established during the first three months after the injury and state that “it is curious that it should persist for so long after compensation has been paid”. It is, however, naïve to suppose that the principal gain from such inappropriate behaviour is financial. There are a number of secondary benefits in the form of decreased demands on their time and energy and the greater attention paid to them. The hurt which they have suffered may serve as a focus for expression of their anguish at other ‘hurts’ which have lain just below the surface for many years.

These benefits are not easily given up and the protracted system of compensation operating in most countries encourages persistence of such responses. Until we recognise the full complexity of these problems we must accept some share of the responsibility for allowing the epidemic to spread.

L. SOLOMON, MD, FRCS
University of Bristol
Bristol, UK.


Sir,

With reference to the article in the July 1997 issue entitled ‘Behavioural response to whiplash injury’, by Gargan et al. I wonder how many orthopaedic surgeons are able to comprehend the paragraph ‘Statistical analysis’ (p 524). I quote:

“The data were analysed by the fourth author (SH) using an SPSS program. The age in years, range of neck movement and GHQ28 scores were entered with the means and standard deviations and then related to the severity of symptoms using an unpaired t-test. These variables were also compared over time using a paired t-test. The influence of gender and the frequency of abnormal GHQ28 scores were compared using the chi-squared test. Change in severity of symptoms over time was assessed by the Wilcoxon signed-rank test, and logistic regression was used to identify those variables that predicted the clinical outcome after two years.”

Granting that the statistical validity of clinical research is of paramount importance, it would be helpful if the journal published an article explaining statistical jargon in simple English.

On a lighter note, perhaps it would be safer not to stop at red lights in Swindon since 38 cars were hit from behind within five months!

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