Lesson of the Week

Treatment of major skeletal injuries in patients with a severe head injury

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Skeletal injuries occurring in conjunction with a serious head injury present problems of management. Early operation should be considered in three classes of injury: compound fractures, fractures with vascular insufficiency, and major joint dislocations.

We report a case that shows the clinical difficulties which may occur when surgery for an anterior dislocation of the shoulder is deferred.

Case report

A 44 year old man suffered a head injury and severe multiple injuries in a road traffic accident. The multiple injuries included an anterior fracture dislocation of the left shoulder. On admission closed manipulation failed to secure stable reduction. Intensive care treatment, including a tracheostomy, was required, and further treatment of the shoulder was deferred for four weeks. Open reduction then failed, and an extensive ossifying haematoma was seen.

At examination eight weeks after the accident almost every known complication of acute anterior dislocation of the shoulder was seen (figure). In addition to the persistent anteroinferior dislocation and consequent internal rotation contracture were capsular disruption, avulsion of the greater tuberosity and rotator cuff, widespread ossifying haematoma, axillary and supraspinatus nerve palsy, gross wasting of the shoulder girdle, and stiffness of the elbow. Reconstruction of the shoulder was not possible and an external rotation osteotomy of the humerus is planned to place the arm in a better position for function.

Comment

This exceptional case shows a confluence of most of the complications of anterior dislocation of the shoulder.¹ Early open reduction might have offered the best chance of achieving stability, restoring rotator cuff integrity and minimising sequelae from the ossifying haematoma—a not uncommon complication of even short periods of immobilisation of joints in comatose patients.²

Many patients with head injuries have other skeletal injuries. It is sometimes thought that head injury precludes early definitive treatment of major skeletal problems. Certainly in the period immediately after trauma management of a head injury must

An aggressive approach to operative reduction in cases of major joint injury associated with head injury should reduce musculoskeletal morbidity

take precedence over injury of the extremities, though arterial circulation must be restored as a matter of urgency.

After assessing 75 patients with associated severe head injury and other skeletal fractures Wray and Davis suggested deferring

Radiograph of the left shoulder showing persistent anteroinferior dislocation; non-union of fracture of greater tuberosity; disuse osteoporosis; and a large calcifying haematoma in soft tissues.

management of non-critical musculoskeletal injury.³ Only a minimum of treatment was allowed in the first 48 hours until neurological and cardiovascular stability were well maintained. Three classes of injury, however, were to be considered for early operation—compound fractures, fractures with vascular insufficiency, and major joint dislocations.

In a similar, larger series this rationale was extended.⁴ The

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authors of this report concluded that it had not been possible to predict the ultimate neurological outcome of a patient with a head injury on the basis of initial examination. They suggested that the orthopaedic surgeon should proceed on the basic assumption of full neurological recovery. Having achieved the best possible resuscitative state a general anaesthetic was permissible if the patient's state remained stable during an immediate observation period. Thus operations on fractured femurs could be performed within eight hours of injury.⁵

We agree with an aggressive approach to operative reduction in cases of injury to major joints associated with head injury. This should reduce musculoskeletal morbidity in the patient with a head injury and will minimise the type of unfortunate consequences shown in the case reported.

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Letter from . . . Chicago

St Ronald and the dragons

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Once again we are in the throes of an election campaign. And a wonderful thing it is, even though it tends to become tedious and drawn out and somewhat of a circus. For freedom and democracy have become rare flowers in the world, and the secret police have been knocking at doors in the middle of the night all too often within living memory. And do we not hear all the time about yet another country where the army has put politicians out to pasture, whereas here they merely ask for more money? This year the Pentagon wanted one third of the entire proposed budget of \$975 billion, an annual increase of 18%—this at a time when social programmes are to be cut by another \$4.6 billion. The suspicion also lingers that the job could be done cheaper, yet without having all kinds of wild men storm embassies, burn flags, or take hostages. Not that one would mind spending the money if economists were not so alarmed about the \$180 billion budget deficit, even giving rise to dramatic newspaper headlines such as "Economy on thin ice." But some experts think that deficits do not matter so long as productivity is increasing, the economy is expanding, more cars are being made, more houses are being built, and employment is rising. So we are left rather like the patient who sought a second opinion and is now hopelessly confused.

The campaign, meanwhile, began in February with Mr Reagan, like St George on his splendid steed, announcing that he would run, or perhaps even gallop, because he needed four more years to get the job done. Listing all his achievements, he told how the inflation monster had been put back in his cage and how the high interest rates dragon had been nearly cut in half—no doubt a gory scene in the hands of Raphael or Uccello. But to complete the picture, and to ingratiate himself with the mousy little lady who prays in the background of the paintings waiting to be eaten, he announced that he would move the prayers back

into the classroom and throttle the hideous monster of abortion on demand. But just as St George's horses are of all different colours and face in all different directions, so the diverse political interests will make sure that nothing much will happen this year—except perhaps for minor tax increases and an attempt to close some tax loopholes or perhaps tax health insurance benefits.

In medicine, likewise, everybody is talking about reimbursement by diagnosis. But nobody knows how it is going to turn out—a good reason to stay off the subject for a while. Which leaves more room for all the consumerists, liberals, and environmentalists, who fret and worry themselves to death, an issue recently taken up by Ms Elizabeth Whelan under the title "Living longer and feeling worse about it."¹ Quoting statistics that Americans are healthier than ever, she pointed out that the monsters of infectious diseases have been smitten so badly that only those battenning on sex still thrive. Many cancerous dragons have also been beaten back; infant mortality has decreased tenfold since the turn of the century; strokes are on the decline; even heart disease is taking a beating; and fewer anencephalic monsters than ever are being born. Yet instead of rejoicing at our "stellar success" we moan and worry and read books about the poisoning of America, and the plague on our children, and eating being hazardous to our health. For all this pessimism Ms Whelan blames journalists and politicians who are committed to the philosophy that the public craves for bad news and negative reports on the quality of life. And she quotes Dr Lewis Thomas, who thought that "Americans are quickly becoming a nation of healthy hypochondriacs living gingerly and worrying themselves to death."

More visits to the doctor

Americans could also be going to the doctor too often, at least according to the \$78 million study by the Rand Corporation. This was carried out on essentially healthy people who were randomly allocated to different insurance plans. It found that people in plans providing free care went to the doctor more often than those who had to pay a percentage, but they were no

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