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NEWS AND NOTES

SUPPLEMENT

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CORRESPONDENCE

Some letters in this week's issue contain references in which the titles of articles are given; in others the titles are missing because the letters were prepared some time ago. From 8 January we shall print all references to letters in full, and authors should therefore provide the titles of articles and chapters in their references. Letters submitted with incomplete references may be returned for correction.

Rugby football injuries to the cervical spine

SIR,—Public attention has again been drawn to the incidence of spinal injury during a game of rugby football as a result of the injury sustained by the medical student from Guy's Hospital (2 October, p 984). The cervical spine is particularly at risk both in open play, during a tackle, and in relatively static play—that is, scrummaging or a maul.[1–3] Although injuries to the cervical spine are reported to be uncommon, their true incidence is not recorded either in this country or world wide, and there is evidence that the numbers are increasing.[3 4]

In the last three weeks three teenage schoolboys have presented to the accident service with significant injuries of the cervical spine incurred while playing rugby. All were hyperflexion injuries, one being sustained on the collapse of a set scrum and two during the formation of a maul when the players landed badly with the ball. Two of the injuries were associated with fractures. Two boys had significant flaccid paresis of the upper limbs: one boy had bilateral paresis associated with a fracture of C5 and C7, and in the other there was no associated fracture. The third boy had a crush fracture of T1 without neurological problems. All the fractures were stable as confirmed by flexion-extension films, using muscle relaxants, tomography, and a computed tomogram as necessary. Two of the patients were mobilised in collars, and the third, with fractures of C5 and C7, was initially treated by halotraction and mobilised in a halo body vest.

In 1979 the Medical Officers of Schools Association highlighted the increasing incidence of injuries to the cervical spine in schoolboys playing rugby.[5] The figures published indicated that, although only five cases of cervical cord injury, two fatal and three resulting in permanent tetraplegia, had been reported in schoolboys in the 27 years between 1942 and 1968, the numbers had risen to 12 in the six years from 1973 to 1978. Sixteen injuries of the cervical spine, including fractures, fracture dislocations, subluxation, or severe ligamentous damage without permanent neurological deficit, were recorded from 1971 to 1978. All were sustained during a set scrum collapse, a ruck, or a maul. A New Zealand survey of cervical injury in rugby football over the five years from 1973-8 found 54 cases of injury, five of which were fatal.[7] The evidence from this review suggested that the injuries to younger players were likely to be more serious. One quarter of the players were under 17 at the time of the accident.

We are particularly concerned about the incidence of this serious injury in teenagers. Adolescent boys, with immature growing cervical spines, are at considerable risk during scrummaging. Unlike first class rugby players who specialise in certain aspects of forward play because their mature physique has enabled them to compete with similarly built individuals with relative safety, schoolboys are not always matched with their competitors in either size or technique. Schoolmasters who are responsible for the welfare of these children must now be aware of the all too frequent tragic consequences of scrummage play at this level, and the safety of the individual boy is paramount in every aspect of the game.

Schoolboys, who may not have any choice but to play rugby, cannot be expected to appreciate that a "do or die" attitude to an apparently