**PROCEEDINGS**

**THE OCCURRENCE AND RELATED ASPECTS OF SPORTS INJURIES**

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**IMMEDIATE POST-INJURY CONSIDERATIONS IN RUGBY FOOTBALL**

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This paper discusses the circumstances, diagnosis, management and treatment of some Rugby injuries on the field and for 48 h post match. Relevant aspects of injury prevention are also considered.

Ideally from a medical viewpoint a team is covered by a doctor, a physiotherapist skilled in sports medicine and an enlightened coach. The pitch is inspected regularly while first aid facilities at hand include stretchers, inflatable splints and a treatment room easily accessible from the field of play. This room should have strip lighting, running water, couch, steriliser, ice etc. In reality facilities at the majority of clubs do not extend beyond the proverbial bucket and sponge. The R.F.U. encourage repeatedly the presence of trained personnel at all Rugby grounds though the situation is still unsatisfactory.

Analysis of injury records at Twickenham for the last 12 years indicate a risk probability per player exposure of .10 for minor injuries and .017 for serious injuries (concussion, fractures, conditions ultimately requiring orthopaedic opinion or keeping the player from competition for 3 weeks). Fractures accounted for 6% of all injuries, head injuries 6.5%, and joint injuries 21%. The knee accounted for 33% of joint injuries, the ankle and shoulder each 25%. Musculo-tendinous injuries were 22-25% while cutaneous lesions increased season by season from 1970 to 38.5% in 1975/76 and 1976/77. Sutures were required in 50% of cuts, 70% of which were in the region of the head and 75% incurred by ‘front five’ forwards. The scrum-half (13.5%), front row (10% per individual) and fly-half (7%) took the brunt of the injuries. Miscellaneous injuries involving eye, ear, oral and genital lesions accounted for the remaining 6%.

The medical attendant is advised to watch the game closely so that he recognises the cause and site of the injury when it occurs. When summoned onto the field by the referee, he establishes the presence of normal consciousness, breathing, limb movements and the source of bleeding, without touching the player. The mouthguard must be removed. After apparent recovery the player should be allowed to stand up independently.

Common causes of needless cuts and lacerations are sharply edged worn nylon or aluminium studs, aggravated by warming up on concrete surfaces, nylon soles with sharp edges, and battered metal eye-holes for laces. With these it is wiser to take the player off briefly to suture and dress the wound before resuming play. It is essential that the referee checks boots and reports faulty footwear, and for players to be covered by a tetanus toxoid injection, though pre-season tetanus immunisation is recommended strongly.

While a correctly designed rugby boot rather than shoe is awaited, ankle injuries continue to scourge the backs, anterior talo-fibular ligaments being involved commonly. Inferior tibio-fibular joint injuries are more serious and take longer to recover. Rugby players should follow the example of 25% of professional soccer players and apply pre-match strapping e.g. a stirrup or Louisiana wrap. For early recovery the player should be replaced immediately, with
immobilisation, elevation, ice and compression following, and weight-bearing avoided where merited until review. Injured players should be given clear instructions for the following 48 h period (a vacuum of inactivity in this period will delay recovery) before reassessment.

With some knee joint lesions a player without the full range of movement recovered or who cannot hop on the afflicted leg must come off. Where internal knee derangement is suspected he must be carried off for early orthopaedic opinion. In my experience some wasting of the vastus medialis on the afflicted side is noticeable, indicating knee instability from previous injury. Again ice must be applied promptly, after oiling the skin lavishly and applying ice rolled in a towel (especially if Cry-gel is used) for 20 min or so. Where a collateral ligament lesion is diagnosed, use of ultrasound around the periphery of the lesion outside the iced area, starting about 4 h after injury with repeated ice/ultrasound treatment 3-4 times daily, assists recovery.

Muscular tendinous lesions must be iced promptly, elevated and the injured player instructed appropriately until reviewed in 48 h. If a player with a quadriceps haematoma cannot bend his knee to 90° after this period, an intramuscular haematoma is suspected and further treatment planned mindful of the risk of myositis ossificans.

A knee or wayward boot in the lumbar region may fracture a transverse process with considerable bleeding into para-vertebral muscles or renal injury. Before resuming play full movement range must be achievable. Post-match urine should be tested macroscopically for blood. Administration of Chymoral, Varidase, or other enzyme preparations seems reasonable.

Similarly with chest injuries a player should be brought off unless he recovers rapidly with pain-free respiration. He should not be strapped as further injury can produce lung damage with resultant haemoptysis, or local collapse of the underlying lung within the next few days. All chest injuries should be referred for X-ray where a fracture is suspected.

Learning to tackle efficiently and fall correctly reduces shoulder joint injuries considerably. Many players improve these basic skills only after absence from rugby for 8-12 weeks with acromio-clavicular subluxation.

It is reasonable to manipulate sub-glenoid dislocation of the shoulder joint within a minute or so of its happening, whilst having maximal muscle relaxation. Pain can be relieved with central analgesics and the individual referred directly to hospital.

A case-study of 11 broken jaws showed pain may not be a prominent feature. A haematoma may not have had time to form though usually tell-tale bleeding occurs around a molar tooth. The jaw closing firmly on a folded handkerchief produces pain at the site. All except one were sustained while tackling rather than being tackled, none were wearing mouthguards while six had previous injuries to shoulder, head or neck.

Fracture dislocation of the spine is rare. There were 3 instances in the R.F.U. last season. One should be suspicious in neck injuries with loss of sensation or paraesthesiae in hands and forearms and where there is a substantial dull ache between the scapulae. Though limb movement recovers the player should not resume play and if inter-scapular pain and hand paraesthesiae persists he must be moved from the pitch fully immobilised. A Fenny-Washington scoop stretcher which divides in its longitudinal axis to be clipped together under the player without any movement is kept at Twickenham for this emergency.

There is an immediate need for assessment and diagnosis when concussion is sustained. It is important with an unconscious player to maintain a good air way, assist breathing and circulation, and place him on his side where there is no sign of neck injury. A player with severe concussion should be taken off, transferred to hospital and advised not to play for 4 weeks after medical assessment. Where there is no transient loss of memory or consciousness and the player is mentally alert without obvious neurological disturbance (i.e. negative Romberg test; finger-nose pointing test satisfactory; no nausea or giddiness; no nystagmus; correct shuttle-run and tandem walk), he may continue playing under further careful observation. If any individual sign of insensitivity is apparent — unsteadiness, slight confusion, minimal disorientation, slight amnesia — the player should be removed from play.

Mouth guards used and advocated by the R.F.U. for all players (including those in mini rugby), provide a final consideration. The “off the peg” sports shop purchased mouth guard can produce obstruction if loose and ill-fitting; it is a menace and in my opinion must not be used. A mouth guard must be custom-made for each player, preferably by his own dentist or, through the arrangements effected via the Coaching Booklet, Page 55, (issues to every Club annually) whereby a close fitting, tasteless, clear, plastic guard for £5.40 is delivered after the plaster mould has been returned.