CONDITIONS

SKIER'S THUMB (GAMEKEEPER'S THUMB)

Patients have usually fallen onto their thumb. The injury is common in the skier who falls holding the ski-pole handle. The injury is caused by damage to the ulnar collateral ligament (UCL) of metacarpo-phalageal (MCP) joint, a strong band that supports the base of the thumb when making a pinch or key grip. Patients usually report that the thumb is comfortable at rest but is pain-full when they make a grip. Damage to the ligament causes to instability at the MCP joint of the thumb, this potentially can lead to persisting pain and arthritis. Gamekeeper's thumb is probably best used as a term to describe a chronic attritional rupture of the ligament caused by repeated stress across the thumb base (Gamekeeper's apparently used their thumbs to break the neck of poultry).

In the first day or two after injury the thumb may be swollen and pain-full, making assessment less easy. Patients are usually tender over the ulnar border of the MCP joint, but may also have tenderness over the volar and dorsal aspect of the joint. The thumb is not usually deviated but if pressure applied to the ulnar border of the thumb tip (radial stress) causes deviation by 40° the ligament is likely to be incompetent. If this manoeuvre hurts, patients can have a local anaesthetic injection before the assessment. Plain film radiographs (x-rays) should be taken to look for an avulsion fracture: a fragment of bone can be pulled-away from the proximal phalanx (thumb bone) with the ligament. (Larger fragments may need to be reattached using a titanium screw.) An ultra-sound scan can help if the clinical assessment is equivocal.

TREATMENT

If the UCL is ruptured or avulsed, repair or reattachment is recommended. Once avulsed, and pulled away from its normal anatomical location, intimate to the side of the joint, the ligament can lie superficial to band of tissue than runs across the first web-space (the adductor-hood). This is referred to as a *Stenar* lesion, the adductor-hood prevents the ligament reattaching or healing without surgery. Splinting alone will cure this condition.

Surgery is under a short general anaesthetic or regional block (numbing the arm), as a day case procedure. An incision is made over the back of the joint. The superficial nerves are retracted, the adductor hood is divided and the ligament reattached using a Mitek™ bone anchor (MiniLok QA+ serial no. 212851 or MicroFix serial no. 212855). The wound are closed with absorbale sutures and alight dressing applied reinforced with a plaster of paris slab on the ulnar border of the thumb. At two weeks the dressings are removed and replaced with a thermoplastic splint for a further four weeks.

If the injury has been neglected for many weeks or months, or if the ligament has been worn away by repeated trauma, reconstruction may be required. (If the MCP joint articular surfaces have become significantly damaged, causing pain at rest patients may be better served by an arthrodesis (joint fusion). Reconstruction of the UCL is achieved using a tendon graft. At surgery the scar tissue and disrupted tendon are removed and thin strip of the palmaris longus tendon is weaved through drill holes in the metacarpal and proximal phalanx. The new ligament is protected for three weeka with a wire across the joint, and after removal of the wire in clinic, a thermoplastic splint for a further three weeks.