FOOTBALLER'S ANKLE

T. P. McMURRAY, LIVERPOOL, ENGLAND*

The injury for which I have suggested the title "footballer's ankle" has not, so far as I am aware, been recorded in surgical literature except by Morris (1943). It may be described as an injury peculiar to the professional footballer, especially those over the age of 25 years who have played the game for several years. Footballer's ankle is not, of course, the only lesion of the ankle joint that may be sustained by football players. Strain or rupture of the lateral ligaments, osteochondritis dissecans of the articular surface of the tibia or astragalus, and traumatic tenosynovitis are often seen, just as they are in those who engage in any athletic pursuit; but whereas these other injuries usually follow a single severe injury, footballer's ankle is the result of repeated minor strains of the anterior ligament of the ankle joint. It is characterised by pain and tenderness localised to the area of strain. Radiographic examination shows a bony outgrowth into the capsule of the joint from the anterior margin of the tibia or from the upper surface of the neck of the astragalus.

FIG. 1

Periosteal thickening at the lower end of the tibia, and from the neck of the astragalus, due to the repeated strain of kicking a football with the foot in equinus.

The liability to ligamentous strain arises from the position of plantar flexion in which the foot is held at the moment of contact with the ball, especially when the ball is "dead." A football may be kicked with any part of the foot but in order to control its direction the foot must be held in full equinus to ensure the largest possible area of contact between the foot and the ball. In this position the extensor muscles which normally protect the dorsal capsule of the ankle joint are at a mechanical disadvantage and the strain of the blow is borne largely by the ligament itself. In Association football this position is used constantly in

* This article was received for publication only a few days before the sudden and most unexpected death of Professor McMurray. It was his very last contribution.

kicking the ball; in Rugby football it is used only in drop-kicking. In punting and place-kicking the joint is in less equinus and it is protected by the extensor muscles.

The patient states that he is able to kick the ball as well as ever when using the point of the toe, but when attempting to kick it in the correct manner he feels a sudden stab of pain in front of the joint. There may be slight swelling over the anterior aspect of ankle but swelling is not a characteristic feature and as a rule the appearance of the joint is normal. On palpation there is a point of tenderness in front of the lower margin of the tibia; forced passive plantar-flexion causes pain. The radiographic appearances vary according to the duration of symptoms. In the early stages there may be nothing more than slight periosteal roughening on the anterior aspect of the lower end of the tibia (Fig. 1). Later, a bony ridge may be seen extending forward from the surface of the tibia at the level of attachment of the anterior capsule of the joint. Occasionally a similar bony outgrowth is seen projecting upwards and slightly backwards from the neck of the astragalus. Owing to the position and extent of the bony rim the radiographic appearances are suggestive of osteoarthritis of the ankle joint with lipping of the articular margin of the tibia, but in fact there is no involvement of the articular surfaces and the outgrowth lies slightly above the articular margin which is always clear and unaffected.

CASE REPORTS

Case 1. W. D., aged 27 years—Professional footballer; had played League and International football for nine years.. Complained of increasing pain in the right ankle. Pain arose only when he played and especially when he kicked a "dead" ball; he was able to kick a moving ball with little discomfort. Had been treated for three years by rest, heat and massage, and on one occasion by manipulation. The ankle was swollen. On its anterior aspect there was local tenderness over the articular margin of the tibia. Forced passive movement caused pain. Radiographs showed a large mass of bone extending as a cap over the upper surface of the joint. At operation the bone was found to be within the capsule. The articular surface of the tibia and astragalus showed no roughening. The anterior ligament was detached from the tibia and no attempt was made to reattach it. After operation the joint was rested for four weeks. After three weeks the patient returned to professional football and continued for five years. He retained his former position and his efficiency was in no way impaired.

Case 2. T. J., aged 25 years—Professional footballer; had played League and International football for six years; experienced no discomfort or pain in the ankle until joining the Services and playing for his regimental team, when he found that kicking a "dead" ball caused a stab of pain in front of the ankle. Treated by physiotherapy for three months without improvement. Radiographic examination showed an extensive bony outgrowth from the tibia. A diagnosis of "advanced osteoarthritis of the ankle joint" was entered on his card. He was warned that under no circumstances should he play football again because if he did so he would become a cripple. The bony mass was found at operation to be confined to the capsular tissue from which it was removed. Since operation this man, who is now 31 years of age, has played League and International football consistently for four years with no discomfort.

Case 3. J. D.—Professional footballer. The history and clinical findings were similar to those of the two players already mentioned. Discomfort, pain and tenderness in the ankle had increased for at least two years. Treatment by physiotherapy was given without success. At operation a large mass of bone was removed from the capsule. He played first-class football for five years.

Three other players have been treated in this way with success. None has had to retire from football and all have resumed their former positions. Footballer's ankle can be recognised from the clinical and radiographic appearances. In no case has it been cured by physiotherapy. Operative removal of the abnormal bone mass appears to be the only certain method of cure. After operation full activity can be resumed with confidence.

REFERENCE

MORRIS, L. H. (1943): *Journal of Bone and Joint Surgery*, **25**, 220.