OSTEITIS PUBIS IN ATHLETES

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Trauma to the pubis may be followed by a non-suppurative, self limiting necrosis in the bone and synchondrosis. Osteitis pubis is uncommon but occurs infrequently after supra and retropubic operations and has been reported after childbirth and abortion and cases have been reported in the English language after trauma. In several there was history of direct injury but in two professional and one amateur Association footballers injury was denied and in other cases reported the symptoms have begun after strenuous exercise.

The features in the footballers were similar. They experienced discomfort in the groins, continued to train and play but suffered increasingly in the later stages of each game. Aching occurred earlier and became worse each match and there was excruciating pain on jumping and striding widely. They were forced to rest as the pain became constant over the pubis, perineum and down the inner sides of the thighs in the distribution of the obturator nerves, was aggravated by the pull of the muscles on their attachments to the diseased bone and spread as the osteitis advanced. There was tenderness over the symphysis, bodies and rami of the pubes, pain there on compression of the pelvis, on full flexion of either leg, on passive abduction at the hips and on resisted contraction of the anterior abdominal and adductor muscles of the thighs. Radiographs showed fraying of the corners of the symphysis, fluffiness of its margins, lifting of periosteum in relation to muscle attachments, osteoporosis and 'moth eaten' erosions of the affected medial parts of the pubic bodies and inferior rami, widening of the symphysis and in the more severe case instability at the symphysis, with the opposing surfaces slipping up and down by as much as $\frac{1}{4}$ " as he bore his weight on each leg in turn. Extensive laboratory investigations revealed no other cause for osteitis pubis in these three athletes than trauma. They were treated by rest, phenylbutazone 400 mgm. daily and short-wave diathermy. Symptoms rapidly abated. After two months radiographs showed early recalcification and they were able to resume training and after a further month they were playing at their previous levels. Twelve months after the onset the bone was fully restored with the symphysis narrowed, patchy osteosclerosis where the bone had been affected and spurs from periosteal new bone formation at muscle attachments.

The blood supply of the pubic bones arises mainly from a periosteal plexus and is through loops that are essentially end-vessels. Compared with other parts of the skeleton the pubic bones have a relatively poor blood supply. Trauma direct or indirect through muscle pull, causes periosteal and subperiosteal damage and thromboembolic occlusion of the end vessels may be the cause of aseptic necrosis of bone and fibrocartilage.

Various overuse syndromes relating to bone and cartilage are recognised:-

- (1) Stress fracture in which disruption of bone trabeculae on the convex side of bone occurs as the result of repeated bending of the bone during strenuous activity
- (11) Periostitis caused by repeated strong contractions of muscle pulling on its attachment
- (111) Chondromalacia patellae
- (1V) Talo-tibial exostosis from impinging of talus on tibia on repeated forced dorsiflexion at the ankle.

Osteitis pubis may occur after direct trauma but it may rarely occur in athletes without such a history and in them it may be another example of an overuse injury. (Figures 1,2,3,).

Fig. 1.

Fig. 2.

Fig. 3.

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