those with meniscal tears responded. Of these, four (27\%) still had symptoms and five (46\%) were unable to participate in sport. Six (75\%) of the patients with cruciate tears returned questionnaires and all were improved although three (30\%) stated that they were unable to resume their sport. Seven out of ten patients with a normal arthroscopy replied and four (40\%) were still symptomatic and unable to resume normal sporting activities. Analysis of the group with patellar pain revealed no relationship between outcome and the sites of pain.

**DISCUSSION**

The results of this study emphasised the frequency of knee pain amongst injured sports people and illustrated the diagnostic difficulties. An unequivocal diagnosis was possible in 46 (35\%) cases. It is noteworthy that of those with histories of knee locking, anterior drawer sign, a positive McMurray test or disabling pain, only one-third had an abnormal arthrogram and two-thirds an abnormal arthroscopy. Classical features of internal derangement were absent more often than not from patients with proven meniscal tears if we had employed Lachman’s modification of the drawer sign but interpretation of this test is not simple (Frank, 1986) and pre-anesthetic diagnosis of this condition remains difficult (Monaco et al, 1982). Acute injury was often absent in meniscal tears. Joint locking occurred in only about one-quarter of cruciate and meniscal tears and partial or complete anterior cruciate tears. It is possible that we would have recognised more anterior cruciate tears if we had employed Lachman’s lateral discomfort. Quadriceps wasting and joint effusions were imperfect but better discriminators of cruciate and meniscal tears than most other physical findings.

The absence of consistent historical and examination features in the population of patients with major mechanical lesions implies that investigations are of paramount importance. We found concordance between arthographic and arthroscopic demonstration of meniscal tears but arthrograms were unhelpful in revealing anterior cruciate tears. The discordance between clinical and arthroscopic diagnosis has been noted previously (Schweitzer, 1981; Older et al, 1983), and it could be argued that arthography is an unnecessary investigation.

However, in our hospital it is not logistically possible to arthroscope every patient. The foregoing suggests that such a policy in our study would have yielded additional patients with meniscal or cruciate tears. We would suggest that any patient with sports-related knee pain of six months duration, should wherever possible undergo arthroscopy.

Many with patellar pain shared sufficient clinical features to suggest a degree of homoogeneity. The site of patellar pain did not correlate with any other clinical variables. Amongst the questionnaire respondents, 40\% still had symptoms after one year and a high percentage were unable to resume their sport. All of the meniscal and cruciate tear subjects had undergone surgery and it is possible that since the questionnaires were returned only a few months post-operatively many would have eventually resumed normal activities. There is evidence that as many as 25\% of athletes who undergo knee surgery are thereafter unable to play sport (Pritchett, 1982).

This study exemplified the spectrum of joint symptoms and signs of knee pain in people who engage in sport; it illustrated that although some clinical features may suggest a particular disorder, their lack of specificity makes clinical diagnosis an imprecise exercise. The study confirmed that many remain disabled despite treatment. It is possible that less stringent criteria for arthroscopy and recognition of additional patients with meniscal and cruciate tears may have reduced ultimate morbidity. Easy access to arthroscopy and orthopaedic services is essential for the efficient management of such patients. Regrettably this is a scarce resource in our own hospital as it is elsewhere (Lightowler, 1983).

**References**


