

Return to professional football (soccer) matches after ACL reconstruction



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Introduction

The injuries of the Anterior Cruciate Ligament (ACL) are very invalidating events that require a surgical treatment and that keep many players out of competition for many months every season. It is well known that after ACL reconstruction an accelerated rehabilitation (Shelbourne & Nitz, 1990) allows the players to return to official matches within about 3-4 months, but there are no epidemiological data on professional football.

The aim of this retrospective study was to investigate the time to return to official competitions after ACL reconstruction.

Methods

Data were collected by the team physicians of the professional teams competing in the Italian First League Championship, filling in a form during the October-December 2002 period. The study involved 479 players. We found 41 players (11%) who underwent one or more than one ACL reconstruction during their career.

Five players were excluded because it was impossible to have exactly the time to return to competitions and the diagnosis. So the total number of ACL ruptures considered in this study was 38.

Results

The mean time to return to competitions was 232 ± 135 days from surgery (range 76-791). 12 players reported an isolated ACL rupture and returned to competitions within 163 ± 44 days (range: 76-231).

20 players reported one or more associated lesions (medial or lateral meniscus and medial collateral ligament) and returned to competitions within 203 ± 56 days (range: 146-329).

6 players reported complications during the operative or rehabilitation periods (swelling, infections) and returned to competition within 456 ± 203 days (range: 233-791).

Discussion/Conclusion

The data of the present study indicate that a fast (<4 months) return to competition was possible only in three cases of isolated ACL rupture. In the cases of isolated rupture, the mean time to recovery and to return to competitions was about five months, although a faster return, up to 76 days, was possible.

In the cases of ACL ruptures with associated lesions or complications, the mean time to recovery is more than six months, with a wide range of time, up to more than 12 months.

The data of the present study must be considered by the coaches and the managers of the professional teams because the time to return to official competitions may have important sports as well as economical consequences and the pressure to return to pre injury competitive levels is immense, especially for the professional football players.

References

Shelbourne KD, Nitz P. (1990) Accelerated rehabilitation after anterior cruciate ligament reconstruction. Am J Sports Med 18: 292-299



Table 1: ACL injured players and mechanism of injury

	Injured players
Total	38 (100%)
Isolated	12 (32%)
Associated	20 (53%)
Complicated	6 (16%)
By contact	16 (42%)
By non contact	22 (58%)
During match	31 (82%)
During training	7 (18%)
Days (mean \pm SD)	232 \pm 135
range	76-791

Table 2: injured players subdivided by type of ACL injury

	Isolated	Associated	Complicated
Total	12 (100%)	20 (100%)	6 (100%)
By contact	4 (33%)	10 (50%)	2 (33%)
By non contact	8 (67%)	10 (50%)	4 (67%)
During match	9 (75%)	17 (85%)	5 (83%)
During training	3 (25%)	3 (15%)	1 (17%)
Days (mean \pm SD)	163 \pm 44*	203 \pm 56*	456 \pm 203*
range	76-231	146-239	233-791

* Significant differences between groups (P<0,001)