improvement over five to six days with consistent and substantial decreases in CRP levels, they are discharged with oral therapy and weekly follow-up examinations. The duration of antibiotic therapy is based on the individual course of each patient and antibiotic therapy is terminated when CRP levels are within normal range (< 5 mg/L) [25]. The mean duration of inpatient treatment was 16.5 ± 8.2 days (range, 4 to 45 days). The mean duration of antibiotic treatment was 5.4 ± 2.3 weeks (range, 2.1 to 12.9 weeks). In 13 patients (36%), the duration of antibiotic treatment was < 4 weeks. A maximum of two arthroscopic irrigation and debridement procedures (mean, 1.46 ± 0.52) was necessary for eradication of the infection in these patients [25].

The available evidence does not allow for drawing a conclusive recommendation regarding the optimal duration of antibiotic treatment after surgical debridement for infected ACLR. However, the literature suggests that antibiotic treatment should be followed for four to six weeks and continued until clinical conditions are improved. Moreover, the literature is still controversial on the duration of antibiotic treatment in case of graft and hardware retention or removal, focusing mainly on the former case. Furthermore, most of the authors do not differentiate between autograft and allograft, considering and treating them in the same manner.

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Authors: Giuseppe Calafiore, James Murray, Clare Taylor, Nimit Patel

QUESTION 8: Should the rehabilitation protocol be modified after surgical debridement of an infected anterior cruciate ligament reconstruction (ACLR)? If yes, what changes should be made with regards to range of motion and weightbearing status?

RECOMMENDATION: We recommend that rehabilitative treatment after surgical debridement of an infected ACLR with graft retention should not differ substantially from primary reconstruction; it should be focused on preventing stiffness and regaining motion through passive and active-assisted range of motion exercises before progressing.

LEVEL OF EVIDENCE: Limited

DELEGATE VOTE: Agree: 100%, Disagree: 0%, Abstain: 0% (Unanimous, Strongest Consensus)

RATIONALE

The development of an infection after ACLR can have significant complications including loss of articular cartilage, graft failure and loss of knee function [1–3]. Although there is wide agreement that treatment must be initiated as early as possible, several different treatment algorithms have been proposed [4–7]. With regards to the postoperative treatment, there are no studies directly focusing on rehabilitation protocols.

While it is well-established that a graded knee-strengthening program (including quadriceps and hamstrings strengthening) has to be started within the first postoperative days [4,8–11], there is no agreement regarding weightbearing status and range of motion parameters.

Rehabilitative treatment after surgical debridement of an infected ACLR does not differ substantially from primary reconstruction. It should be focused on preventing stiffness and regaining motion through passive and active-assisted range of motion exercises.

There are no studies suggesting an altered rehabilitation protocol in the setting of a postoperative infection. Monaco et al. [10] suggest the use of a brace locked in extension for two weeks, followed by a progressive increase in the range of movement and muscular strength. Alternatively, many authors allow immediate full range of movement under the supervision of a physical therapist [7,11]. Indelli et al. [12] and Wang et al. [3] recommend starting rehabilitation only after complete resolution of symptoms, and suggest only passive motion of the knee and the ankle in the meantime.

There is a lack of consensus on weightbearing status after treatment of an ACL infection. Torres-Claramunt et al. [4,13] suggest starting a strengthening program two weeks after surgery with progressive weightbearing after symptoms decrease. Likewise, weightbearing was gradually increased until resolution of symptoms in the rehabilitation protocol developed by Hantes et al. [14]. However, McAllister et al. [15] and Schub et al. [16], suggest beginning the weightbearing six weeks after surgery.

Overall, there is a lack of evidence to support a standardized approach to rehabilitation after the surgical debridement of an infected ACLR. High-quality controlled trials are needed to provide guidelines for this rare and difficult complication.

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Authors: Arnaldo Hernandez, Sommer Hammoud, Christopher Hadley

QUESTION 9: When can patients safely undergo revision anterior cruciate ligament reconstruction (ACLR) following treatment for prior infection?

RECOMMENDATION: It is considered safe to perform a revision ACLR following completion of successful treatment for infection and normalization of clinical and laboratory parameters upon resolution of the infection. The literature does not suggest a specific timeframe following resolution of the infection prior to performing revision ACLR.

LEVEL OF EVIDENCE: Consensus

DELEGATE VOTE: Agree: 92%, Disagree: 0%, Abstain: 8% (Super Majority, Strong Consensus)

RATIONALE

Infection following ACLR is rare, with a reported incidence of 0.14% to 2.25% [1,2]. When infection does occur, there are potentially significant consequences, particularly regarding patient outcomes [3]. Following allograft ACLR, there is a well-known risk of disease