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New Injuries Within 2 Years After Acute ACL Injury Treated With Either ACL Reconstruction and Rehabilitation or With Rehabilitation Alone

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Disclosures

We do not have a financial interest or other relationship with a commercial company or institution or no conflict of interest



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Background

- The risk for new injuries after the initial ACL-injury is high, but it is unknown how the outcome is for the two different groups; ACL reconstruction (ACLR) or non-ACLR.

AIM:

To describe the frequencies of new injuries within two years after an ACL-injury, in a cohort of patients with acute ACL-injury treated with either ACLR and rehabilitation or with rehabilitation alone.



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Methods

- Data from a national, multicenter, cohort ACL study (the NACOX-study) were analyzed.
- Patients aged 15-40 years with an acute ACL-injury were included within 6 weeks from the injury and treated according to usual care:
 - Initial rehabilitation for approximately 3 months (if no indications for early ACLR)
 - Follow-up with an orthopedic surgeon to decide ACLR or continuing with rehabilitation alone
- Data about ACLR and new knee injuries was collected continuously.
 - Serious injury was defined as graft rupture or an injury leading to a specific treatment (e.g. arthrocentesis) or surgery



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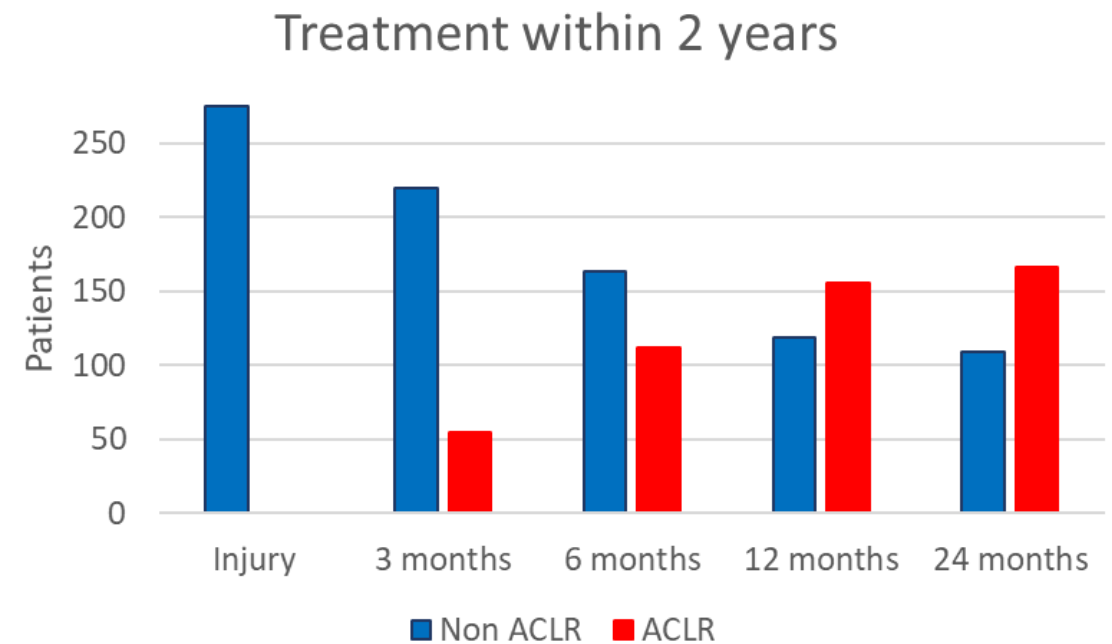
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Results

- 275 patients (52% females) with a mean age of 25.2 (SD 7.0) were included.
- At 2 years after injury, 169 (61%) had undergone ACLR in a mean of 6.8 (SD 6.7) months after injury.
- The majority were active in sports prior to injury (median Tegner activity level 7 (IQR 4-9)) and 259 (94%) had the goal to return to sport.



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Results

- 30 (11%) patients sustained new injury within 2 years. 20 (67%) had return to sport before the new injury
- 4 (4%) in the group treated with non-ACLR had a new injury
- 26 (15%) in the ACLR group had new injury, 7 (4%) got the injury before, and 19 (11%) got injured after the ACLR including 12 graft ruptures

	Total n=275	Non ACLR N=106	ACLR N=169	
Patients with no new injury	245 (89%)	102 (96%)	143 (85%)	
			Before ACLR	After ACLR
Patients with new injuries	30/275 (11%)	4/106 (4%)	7/169 (4%)	19/169 (11%)
Injury not leading to surgery	3/30 (10%)	1/4 (25%)	0	2/19 (11%)
Injury leading to surgery	15/30 (50%)	3/4 (75%)	7/7 (100%)	5/19 (26%)
ACLR	7	1	6	
Other	8	2	1	5
Graft rupture	12/30 (40%)	-	-	12/19 (63%)



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Conclusion

- **11 % of the patients sustained a new knee injury within 2 years from index ACL injury, and 2/3 of these had returned to sports before the new injury.**
- There were a higher frequency of new injuries in the ACLR-group.
- The association between new injuries and ACL treatment is complex and more analyses is needed.
- This analyze and further analyses of acute ACL-injury, may help clinicians in the decision for the best treatment.



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