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Evaluation of the results of using the peroneus longus tendon as an autologous graft in knee surgeries.

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Faculty Disclosure Information

- Nothing to disclosure



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Introduction

- Knee ligament injuries are common in sports.
- Ligament Reconstructions:
 - Autografts
 - Flexors, Patellar, Quadriceps
 - Allografts
- Peroneus longus is a graft option

Nordenvall 2012

Paschos 2017, Chambat 2013

Karimi 2013, Nazem 2014



Objective

- To determine whether the use of the peroneus longus graft is safe for ligament reconstructions in the knee.



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Methods



Prospective Study



April 2019 and
September 2022

Patients undergoing knee surgery (n=155)

Excluded due to ankle
instability (n=2)

Patients included (n=153)

Lost follow-up before 6
months (n=6)

Patients analyzed (n=147)



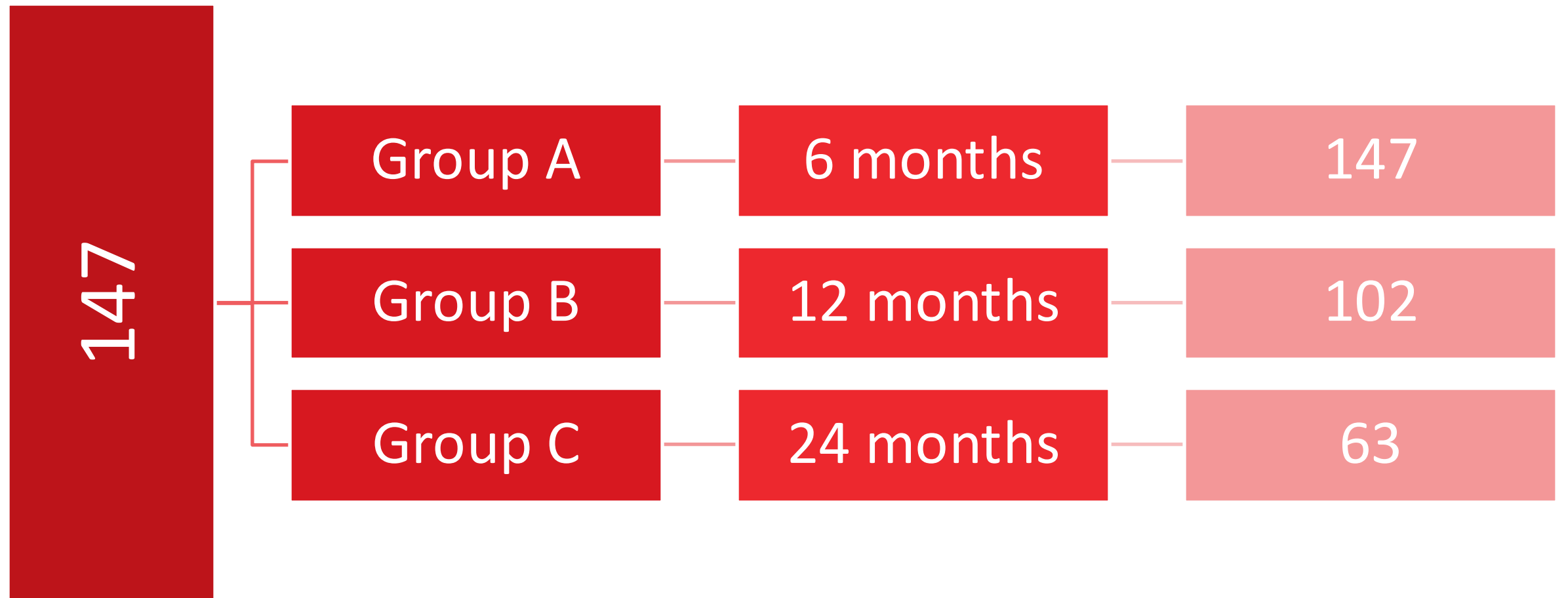
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Methods



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Methods

- All patients were evaluated:
 - Tegner-Lysholm
 - International Knee Documentation Committee - IKDC
 - American Orthopedic Foot and Ankle Score – AOFAS
 - Foot and Ankle Disability Index - FADI

6 months

12 months

24 months



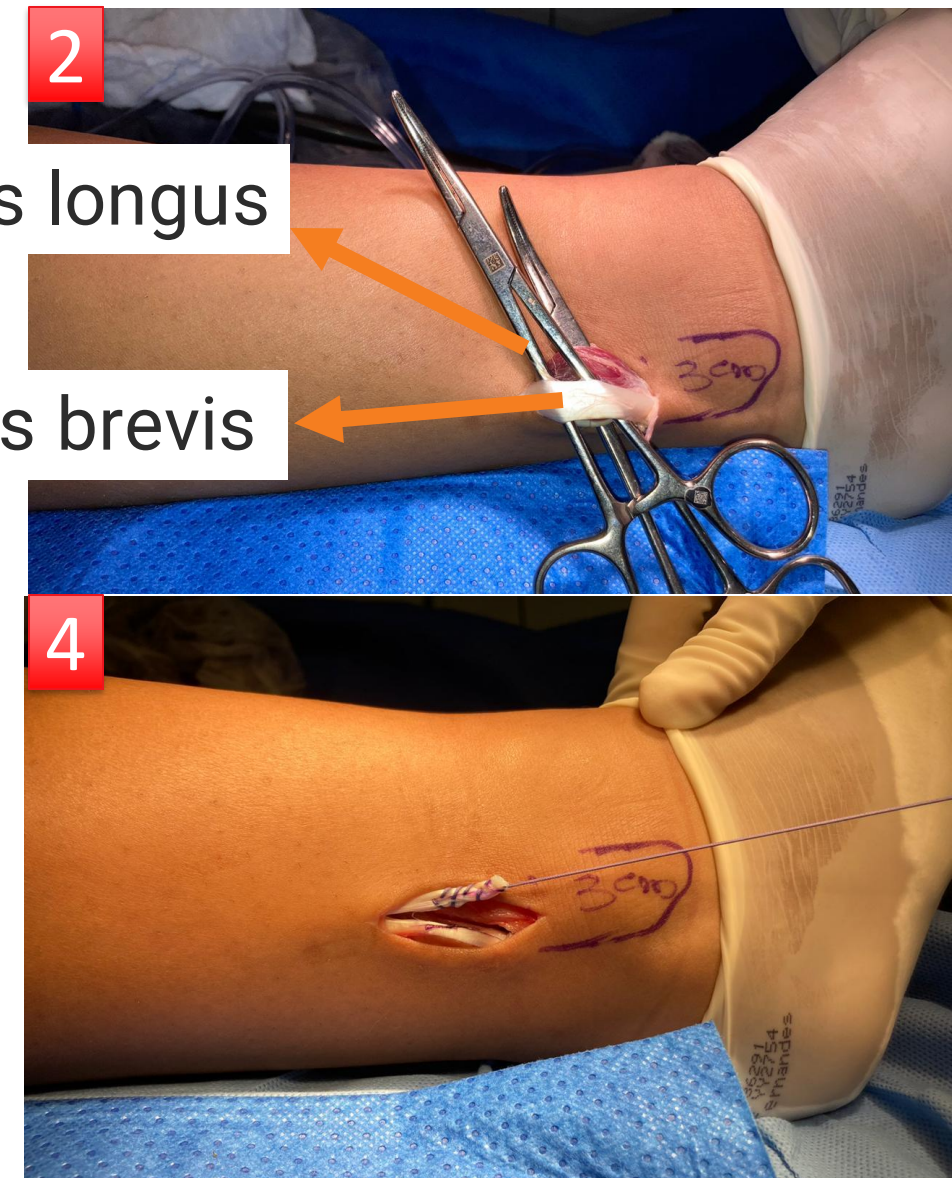
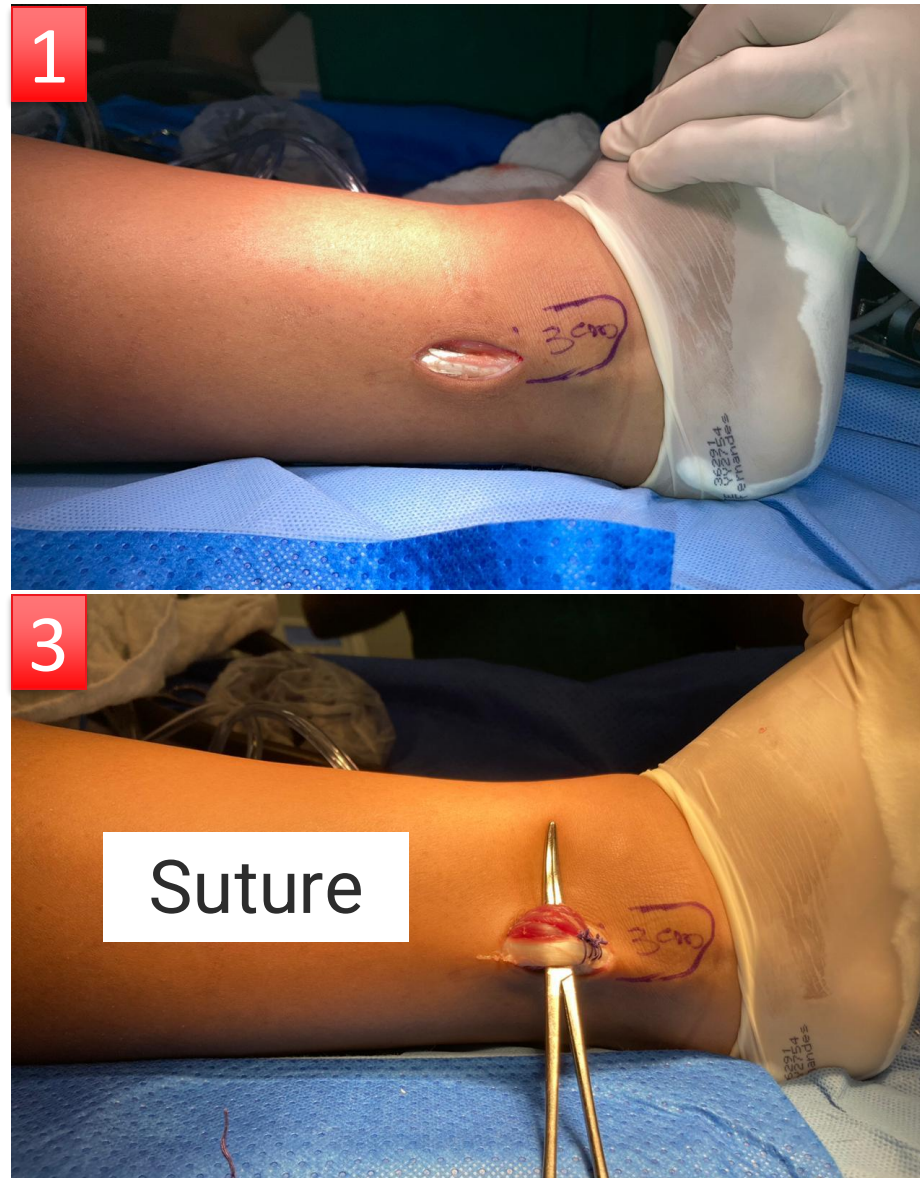
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Graft removal technique



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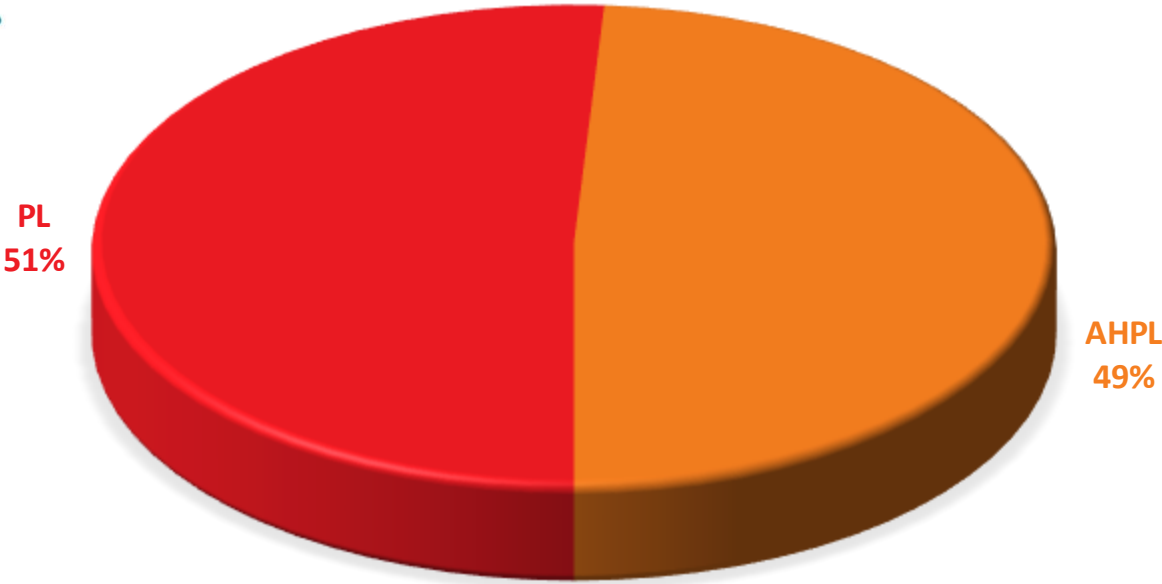


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Results

GRAFT TYPE



PL – peroneus longus AHPL – Anterior half peroneus longus

COMPLICATIONS

Superficial Infection	3 (2.04%)
Hematoma	15 (10.20%)
Neurological Deficit	0



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Results

	Graft	Follow-up	Score Mean $\pm$ SD	Confidence Interval 95%	P-value
IKDC	PL	6 months	89.25 $\pm$ 5.96	1.87	<0.001
		12 months	97.41 $\pm$ 3.26	1.02	
		24 months	99.02 $\pm$ 1.02	0.32	
	AHPL	6 months	83.80 $\pm$ 9.80	3.92	<0.001
		12 months	98.44 $\pm$ 1.86	0.74	
		24 months	99.31 $\pm$ 0.54	0.22	
Lysholm	PL	6 months	89.31 $\pm$ 5.45	1.71	<0.001
		12 months	97.00 $\pm$ 3.44	1.08	
		24 months	98.69 $\pm$ 1.08	0.34	
	AHPL	6 months	90.00 $\pm$ 4.24	1.70	<0.001
		12 months	96.88 $\pm$ 2.91	1.16	
		24 months	98.88 $\pm$ 0.95	0.38	



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Results

Graft		Follow-up	Score Mean $\pm$ SD	Confidence Interval 95%	P-value
AOFAS	PL	6 months	98.72 $\pm$ 0.86	0.27	<0.001
		12 months	99.85 $\pm$ 0.54	0.17	
		24 months	99.92 $\pm$ 0.27	0.08	
	AHPL	6 months	97.51 $\pm$ 4.87	1.95	<0.001
		12 months	99.64 $\pm$ 0.68	0.27	
		24 months	100 $\pm$ 0.00	x	
FADI	PL	6 months	98.95 $\pm$ 0.88	0.28	<0.001
		12 months	99.85 $\pm$ 0.54	0.17	
		24 months	99.92 $\pm$ 0.27	0.08	
	AHPL	6 months	99.47 $\pm$ 0.76	0.31	0.007
		12 months	99.63 $\pm$ 0.71	0.28	
		24 months	100 $\pm$ 0.00	x	



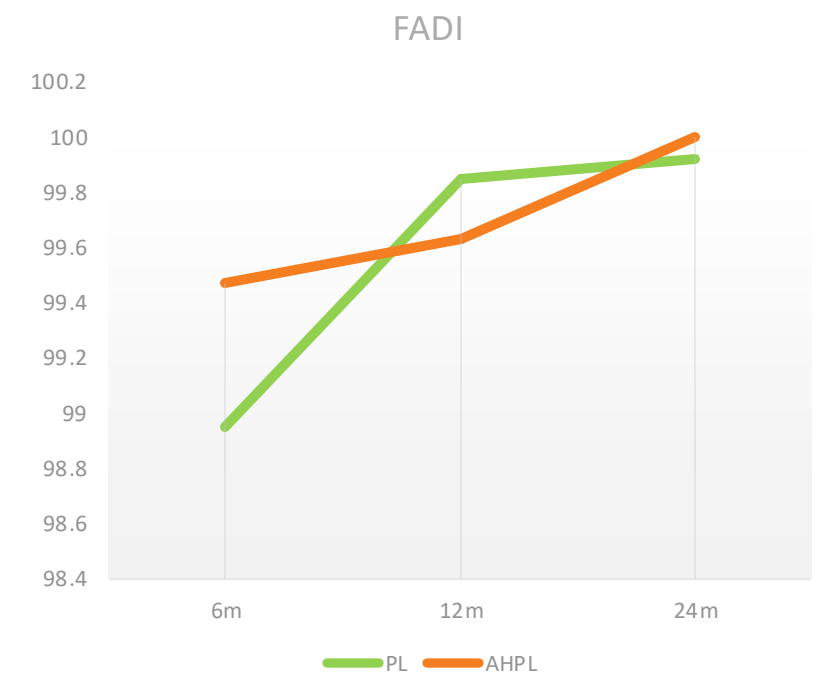
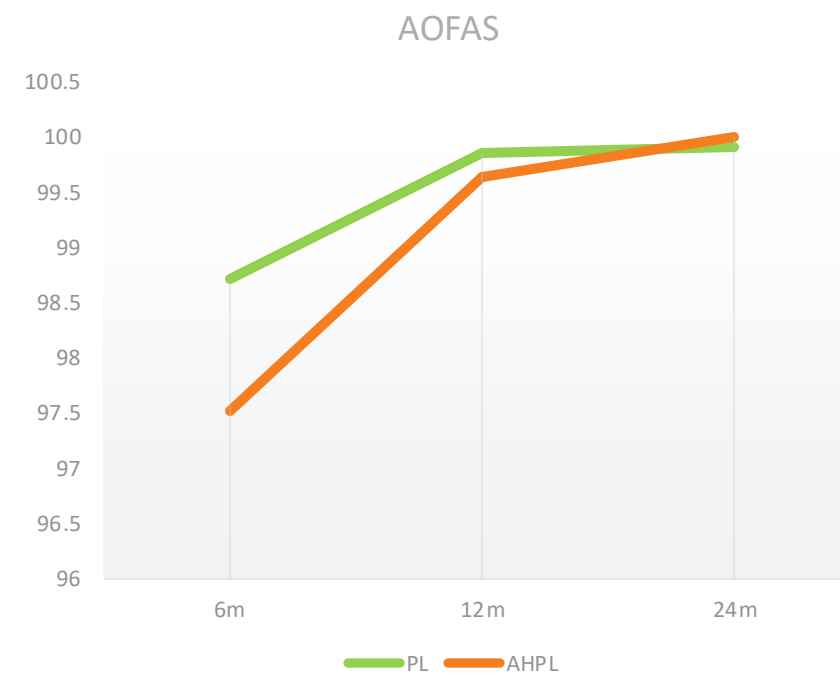
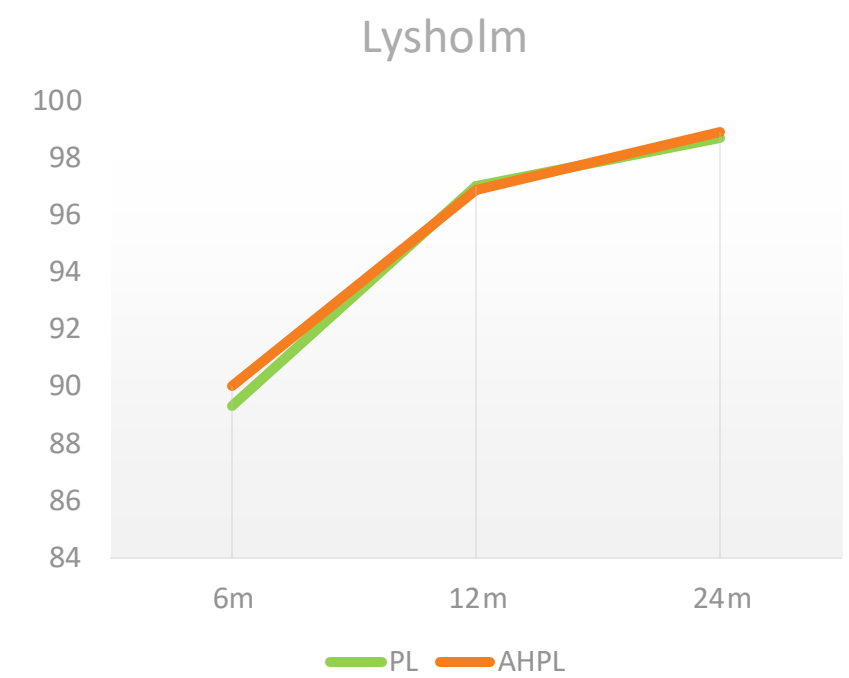
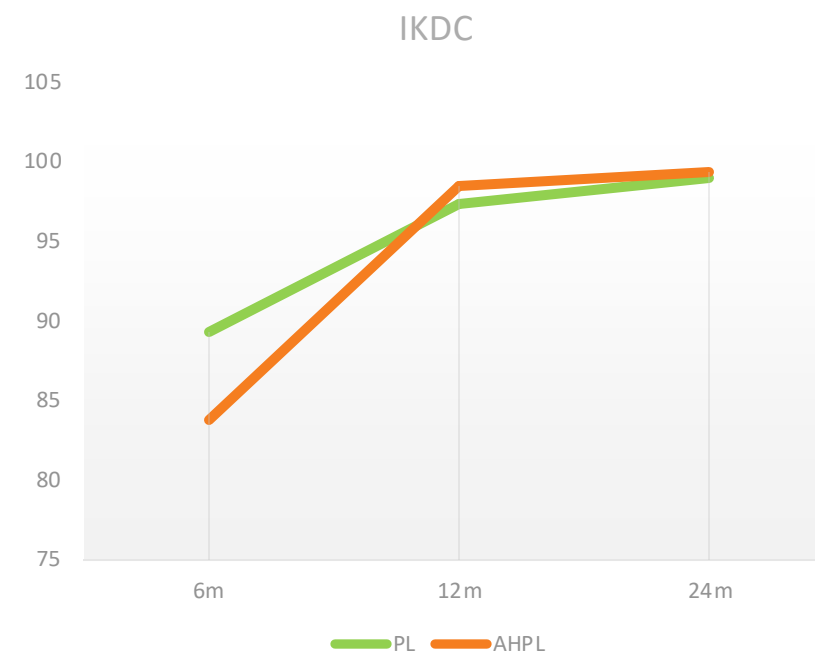
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Results



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Discussion

- The most important finding of the study is that the peroneus longus graft is safe for use in knee surgeries and has good results.
- This association has also been proven in other studies.
 - Fu 2020, Rhatomy 2019, Hossain 2023

Conclusion

- The peroneus longus graft should be part of the knee surgeon's arsenal.



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