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Arthroscopic Surgery vs. Physical Therapy for Patellar Tendinopathy

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- May be found on the ISAKOS website
- None relevant to the content of this presentation



Patellar Tendinopathy

- Common overuse condition leading to anterior knee pain
- Prevalence: 14.2% of elite-level athletes, even more common in jumping sports (e.g. basketball, volleyball)
- No consensus regarding optimal treatment



Non-operative Treatment

- PT: mainstay of treatment
 - Eccentric exercise = central component
 - Newer evidence suggests isometric exercise and heavy slow resistance training are useful adjuncts
- Other non-surgical modalities
 - Dry needling
 - Sclerotherapy
 - Prolotherapy
 - Shock wave therapy
 - PRP



Operative Treatment

- Historical: patellar tendon debridement through open anterior knee incision
 - Level 1 RCT demonstrated similar outcomes between PT and open debridement (Bahr et al, 2000)
- Modern: arthroscopic tendon debridement
 - First described in 1999 (Romeo & Larson)
 - Multiple studies have reported good results
 - Level 1 RCT comparing arthroscopy to sclerotherapy showed lower VAS pain and higher patient satisfaction with arthroscopy (Willberg et al, 2011)



Study Design

- No prior article has directly compared clinical outcomes of arthroscopic surgery vs. PT for patellar tendinopathy
- Systematic review performed according to PRISMA guidelines
 - Level 4 evidence or higher
 - Examined arthroscopic surgery OR physical therapy in patients with patellar tendinopathy
 - Compiled baseline and final outcomes, aggregated and compared scores between groups



Results

- 52 articles included → 1177 patients with patellar tendinopathy
 - Physical therapy: 775
 - Arthroscopic surgery: 402
- 77.7% male
- Mean age: 27 years



Clinical Outcomes

	Physical Therapy	Arthroscopic Surgery	P value
VAS (baseline)	5.37 ± 2.50	5.17 ± 2.15	0.50
VAS (final)	3.28 ± 2.94	1.45 ± 4.40	< 0.001
VISA-P (baseline)	55.20 ± 12.34	47.89 ± 8.76	< 0.001
VISA-P (final)	74.25 ± 14.10	88.21 ± 9.86	< 0.001



Conclusions

- Patients treated with arthroscopic debridement had equivalent VAS scores and worse VISA-P scores at baseline compared to those treated with physical therapy
- However, the surgically treated patients had significantly better scores at final follow-up
- Arthroscopic treatment of patellar tendinopathy may be associated with improved outcomes compared to physical therapy



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