Tendon Scraping in Chronic Patellar Tendinopathy

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HISTORY

A 29 yo M presents with many years of right knee pain, which started in high school. No traumatic injury or prior surgeries. He denies any locking, clicking, or effusion. He is very active and runs or hikes daily. The pain worsened in the winter of 2014 after frequently running stairs for exercise.

On presentation to our clinic, he had already completed 3 months of PT without any improvement. He continued to be active, however the pain interfered with his ability to exercise as desired.

DIFFERENTIAL DIAGNOSIS

1. Patellar Tendinosis
2. Patellofemoral syndrome
3. Meniscal tear
4. Hoffa's fat pad impingement
5. Infra-patellar bursitis

GENERAL EXAM

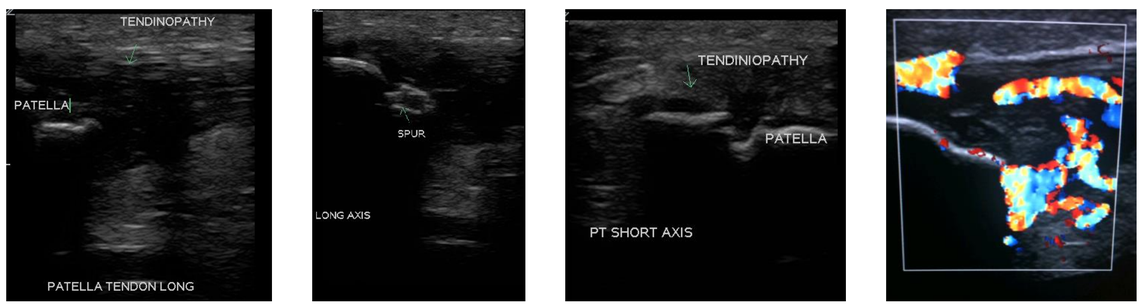
Vitals: T97.5 BP 112/68 HR 75 O2 sat 100% on room air
Constitutional: Alert, NAD, appears stated age

KNEE EXAM and IMAGING RESULTS

Right Knee: Patient with antalgic gait. Right knee without effusion or skin changes. Right quad atrophied relative to the left. Full active ROM of the knee. Tender to palpation over the proximal patellar tendon. Non-tender over quad tendon, patella, and medial and lateral joint lines. Hyper-mobile patellae bilaterally. Negative valgus/varus stress at 0 and 30 degrees. Negative Lachman.

R knee Xray: No acute fracture or dislocation. Unremarkable joint spaces. Normal soft tissue.

R knee MRI: Patellar tendinopathy with partial tearing at its patellar insertion with associated marrow edema of the inferior patella. Mild patella alta.



R knee US: R patellar tendon visualized along the length. There are microvessels and decreased echogenicity in the proximal and distal insertion of the patellar tendon.

FINAL DIAGNOSIS

Chronic patellar tendinopathy

DISCUSSION

- Patient failed PT, eccentric exercise, and nitroglycerin patches
- Offered US-guided patellar tendon scraping as next step.
- Though there have been no large trials for patellar tendon scraping to date, there have been case reports of success with this treatment modality and evidence of efficacy with use in other tendinopathies
- Patient opted to proceed with patellar tendon scraping.

OUTCOME

- 20% improvement in self-reported pain following 1st scraping
- 50% improvement following 2nd
- No further reduction in pain with 3rd and 4th treatments.

FOLLOW-UP

- After 4th scraping pt met with orthopedic surgeon and declined surgical intervention
- He had PRP injection with ortho, the outcome of this is not known as patient moved outside the country
- At last visit, he was doing usual activities with some ongoing pain, however, improved 50% from prior to tendon scraping.

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