

Placental Tissue Matrix  
Skye Biologics PX50®

Case Report

August 25, 2016

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Diagnosis

Right knee pain

Intro

On March 7, 2016, a 35-year-old male presented with pain, swelling and popping in the right knee that started after running 1.5 miles for a fitness test.

Diagnosis

Dr. Tierney used a B-mode ultrasound with 8 to 13MHz high frequency GE 12L linear transducer to perform a diagnostic exam. The ultrasound revealed

1. Right popliteus tendon insertional tendinosis
2. Right saphenous nerve and obturator nerve irritation through the medial collateral ligament
3. Right medial coronary ligament tear and medial meniscus tear
4. Right proximal patellar tendinosis

Initial Treatment

In March and April 2016, three treatments were performed, involving aspirating of the suprapatellar pouch and injecting the tears with 0.5% Ropivacaine and 0.1 cc 50 mg/mL aqueous testosterone, to stimulate healing of the knee.

On May 18, 2016, there was less fluid, but patient still reported significant pain in the right knee. He agreed to the PX50<sup>®</sup> solution in hopes of lasting pain relief.

#### PX50<sup>®</sup> Treatment

On May 18, 2016, 0.5 cc .5% Ropivacaine with 0.5 cc Skye Biologics Placental Tissue Matrix Allograft, PX50<sup>®</sup>, was injected into the right popliteus tendon, patellar tendon, and medial collateral ligament and medial meniscus.

#### Follow Up

On July 20, 2016, eight weeks after the PX50<sup>®</sup> injection, patient felt mild improvements, but overall the knee still was weak and limited when twisting, torqueing and squatting.

The ultrasound exam revealed:

1. Symptomatic resolution of the medial collateral ligament and medial meniscus tear
2. Resolution of proximal patellar tendon tendinosis
3. Right medial patellofemoral ligament defect

#### Treatment post PX50<sup>®</sup>

On July 20, 2016, the defect in the patellofemoral ligament was hydrodissected with 2cc 1% Lidocaine and 8cc normal saline.

#### Follow Up

On July 25, 2016, the patient returned with right knee swelling and pain that occurred after a workout.

The recurrence of the supra patellar pouch effusion was confirmed by ultrasound.

#### Treatment

Under ultrasound guidance, on July 25, 2016, the right supra patellar pouch was flushed with 18 saline and 2 cc of lidocaine, and 20 cc of fluid was aspirated. Next, the right supra patellar pouch was injected with 2cc % lidocaine, 8 cc Normal Saline, .4cc Kenalog 40mg/ml, .4 cc aqueous testosterone 50mg/ml.

Patient was sent for lab work to evaluate his hormone balance, as testosterone could be related to healing.

#### Follow Up

On August 9, 2016, patient reported that the knee was no better or worse since the prior treatment. He was found in lab work to have low levels of testosterone, which he reported was frustrating given his dietary and lifestyle changes to promote testosterone production. Patient was started on testosterone supplementation.

On August 25, 2016, the patient reported that there was no major change in the right knee, but he noticed other immediate improvements from the testosterone supplementation. He experienced increased alertness, improved sleep, and an increased libido. Patient reported an unexplained soreness in all joints, despite a break from weight lifting and a strict Paleo, anti-inflammatory diet. Patient did not fully heal from the PX50 injections in his shoulder or his right knee, which could be from a low testosterone level, or from a systemic inflammatory condition that could affect his joints.

Figure 1. Reduction in Self-Reported Pain on a 1-10 Scale, before and after PTM Placental Tissue Matrix

Level of Pain	Pre- PX50®	Post- PX50®
	3/7/16	7/20/16
Average Pain	3	2
% Reduction in Pain	33%	