INFRAPATELLAR NEUROPATHY MIMICING A SYMPTOMATIC MEDIAL MENISCUS TEAR: A CASE STUDY

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HISTORY: A 50-year-old, right hand dominant, Caucasian male screen writer and recreational athlete complained of anterior and medial knee pain after learning a Western style of tennis. The symptoms were exacerbated during the forehand apparently from the rotation forces on the knee during lateral rotation of the hip when weight bearing. Tennis eventually became intolerable secondary to the pain. Road bike rides did not elicit symptoms. Squats of 100 kilos did not elicit symptoms. The patient could elicit clicking in the knee which was usually not painful. The patient denied giving way in the knee. The symptoms were intermittent over a seven-month period. The patient could play tennis for a brief period but was so exacerbated he could not play a second consecutive session. He had to wait several weeks to play again.

PHYSICAL EXAMINATION: The knee was examined approximately every six weeks over this period of time. The Lachman's test, anterior drawer test, McMurray's test, and valgus tests did not elicit symptoms nor revealed laxity. The patellofemoral examination was normal except for pain along the most medial joint line which was 2+. 2+ tenderness was also noted superiorly, up to the adductor tubercle and inferiorly along the medial tibial plateau. Valgus laxity was minimal and equal bilaterally. The pes anserine tendons and bursae were also 2+ tender to palpation. MR scan revealed a small flap tear of the posterior horn of the medial meniscus, and a small ganglion cyst in the posterolateral knee.

DIFFERENTIAL DIAGNOSES: 1. medial meniscus tear 2. pes anserine tendonitis and bursitis 3. grade I MCL sprain.

TREATMENT: The patient received ultrasound, electric stimulation, soft tissue mobilization, Cyriax-based cross friction massage and cryotherapy twice per week, intermittently due to the patient's travel schedule. Various combinations of these modalities and procedures were utilized.

RESULTS: The patient experienced intermittent relief throughout this period of time. However, the patient was not able to return to tennis. Occasionally, the patient would experience anterior and anteromedial knee pain when ambulating up stairs. Re-exam seven months later revealed marked pain in the medial and anteromedial knee during the valgus stress test but the laxity remained minimal and equal bilaterally. At the time of this re-examination, careful palpation along the MCL and pes anserine tendons elicited pain referred across the proximal anterior tibia, from medial to lateral. This also produced a very mild nauseous feeling for the patient. This finding was reproducible.

The patient was referred to a specialist in chronic pain management (EC) for consideration of a block of the infrapatellar branch of the saphenous nerve. The patient was given a diagnostic block by injecting Marcaine and Celestone to block the infrapatellar branch. The patient experienced complete relief of the symptoms. This short-acting block wore off in one week and a repeat injection of a longer acting steroid and Marcaine produced approximately 20 days of complete relief. The patient was able to tolerate a greater volume of tennis, but the exacerbations were more erratic, but much milder. The patient elected to have a radiofrequency (RF) ablation of the infrapatellar branch. The patient became asymptomatic and returned to tennis four days per week, beginning two weeks after the RF procedure.

FINAL DIAGNOSIS: Infrapatellar neuropathy (saphenous nerve).

CONCLUSION: Pathology of the infrapatellar branch of the saphenous nerve may present similarly to medial meniscus tears and MCL sprains. Pathology which may be radiographically apparent may not be the pain generator. The medial knee pain and joint line tenderness was generated by the infrapatellar branch of the saphenous nerve as confirmed by the blocks and RF. This diagnosis should be considered if the patient with medial and anteromedial knee pain presents somewhat atypically. Failure to consider this diagnosis could lead to mismanagement of this pathology. Multi-disciplinary co-management of patient care in atypical case presentations is highly advantageous.

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