PHYSICAL THERAPY MANAGEMENT OF A PATIENT WITH DIFFUSE PIGMENTED VILLONODULAR SYNOVITIS: A CASE REPORT

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BACKGROUND AND PURPOSE: Pigmented villonodular synovitis (PVNS) is a rare, benign disease of the synovial tissue resulting in overgrowth and swelling of joints or tendon sheaths. Currently there is no conservative management of this condition as PVNS continues to grow without radiation and/or surgery. There is limited research on conservative symptom management prior to surgery or on post-operative physical therapy management. The purpose of this case report is to describe the outpatient physical therapy treatment of a patient who underwent surgery to remove a recurrence of diffuse PVNS 20 years after initial surgery.

CASE DESCRIPTION: The patient was a 48 year-old Caucasian female referred to physical therapy with recurrent diffuse PVNS in her left knee. Twenty years prior to this episode, the patient was diagnosed with diffuse PVNS in her left knee and underwent a massive knee debridement, including a synovectomy and menisectomy followed by radiotherapy. The recurrence of symptoms resulted in difficulty performing transfers, ambulation, and performing work-related duties as a special education teacher. For this episode, the patient had a synovectomy, chondroplasty, and spur excision to remove the PVNS and the damage that it caused to the knee joint followed by physical therapy.

OUTCOMES: At discharge left knee flexion increased by 45% and knee extension increased by 70%. Knee range of motion increased to functional range for sitting and squatting to perform household cleaning and work duties. Knee extension was lacking 3 degrees; however gait abnormalities were only evident with fatigue. Strength improvement was noted with a change from inability to perform transfers without significant pain to 5/5 ratings of manual muscle testing throughout bilateral lower extremities without pain.

DISCUSSION: Patients post-PVNS surgery may benefit from physical therapy interventions that address gait abnormalities, mobility, range of motion, and strength to improve functional status with transfers, ambulation, and stairs.