INTRODUCTION

Pigmented villonodular synovitis (PVNS) is a rare benign disease characterized by proliferation of abnormal synovial tissue. In 1852, Chassaignac originally described what we now believe to be PVNS occurring in a tendon sheath ***(Goldman, 1988)***. The term PVNS was first coined by ***Jaffe et al in 1941***, who noted a common histology to a series of proliferative lesions in the synovium of joints, tendon sheaths, and bursa.

PVNS usually occurs in adults between ages 20 and 40 and most commonly affects the synovium of large joints, with an 80% predilection for the knee ***(McCarthy, 1998)***. PVNS has been subclassified into 2 growth patterns: localized and diffuse ***(Granowitz, 1976)***.

PVNS of the knee mimics other more common knee ailments, making diagnosis difficult. Clinically, PVNS presents with the insidious onset of localized joint pain, swelling, and restricted range of motion. Occasionally, a palpable mass is present ***(Kramer, 2004)***.

Numerous treatment modalities for pigmented villonodular synovitis exist, including open and arthroscopic total or partial synovectomy, external beam radiation, and intaarticular injection of radioisotopes ***(Kramer, 2004)***.

Localized PVNS is the less common, nodular variant and typically involves a limited synovial area. Treatment consists of open or arthroscopic excision, and a low rate of recurrence has been reported ***(Zvijac, 1999)***. Diffuse PVNS is histologically similar to the localized form, but presents as multiple villous lesions throughout the synovium ***(Granowitz, 1976)***. A significantly higher recurrence rate is noted

following open or arthroscopic synovectomy for diffuse PVNS of the knee, with estimates ranging from 10 to 45% ***(Shabat, 2002)***.

Ogilvie-Harris et al., 1992, showed significantly better results with total arthroscopic synovectomy compared with partial synovectomy.

Advantages of arthroscopic treatment include lower operative morbidity, ability to treat other knee pathology, decreased risk of joint stiffness, lower risk of wound complications, and more rapid rehabilitation ***(Blanco, 2001)***.

However, arthroscopic total synovectomy is technically demanding due to difficulty visualizing the posterior synovium. With proper technique and appropriate use of posteromedial, posterolateral, and posterior trans-septal portals, adequate visualization and debridement of the posterior synovium can be achieved via arthroscopy ***(Kramer, 2004)***.