# A common pain in pregnancy with an uncommon cause

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## CASE DESCRIPTION

**Case:** A 41-year-old woman presented with 9-months of persistent atraumatic left hip pain localized to the groin that had started in her second trimester of pregnancy.

**Background**: Five months after delivery at presentation to clinic, her symptoms had progressively worsened to require a cane for ambulation.

**Exam:** On exam, hip range of motion was limited: flexion to 90$^{o}$, external rotation to 20$^{o}$, and internal rotation to 10$^{o}$. She had groin pain with internal and external rotation. She was neurovascularly intact without lymphadenopathy.

**Imaging:** Radiographs showed significant erosion of the left femoral head and acetabulum with mild protrusio. "Apple core" erosions were visualized at the femoral neck. MRI showed extensive bone edema on both sides of the joint, with erosion of the femoral head and acetabulum. There was joint effusion, synovial hypertrophy, and excessive synovial tissue.

**Differential diagnoses**: included PVNS, avascular necrosis, rapidly progressive osteoarthritis, inflammatory arthritis, septic arthritis, insufficiency fractures, synovial chondromatosis, and transient osteoporosis of the hip.

**Diagnosis**: A needle biopsy confirmed the diagnosis of PVNS.

**Treatment**: She was treated with synovectomy and total hip arthroplasty, and has remained pain free and without evidence of disease for the last 5 years.

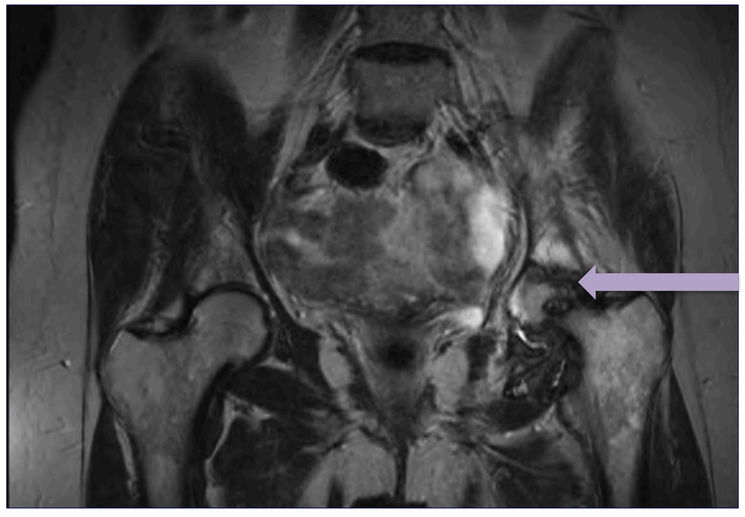

**Figure 1:** T2 coronal MRI demonstrates “apple core” erosions seen in synovial chondromatosis, amyloidosis, rheumatoid arthritis, and PVNS

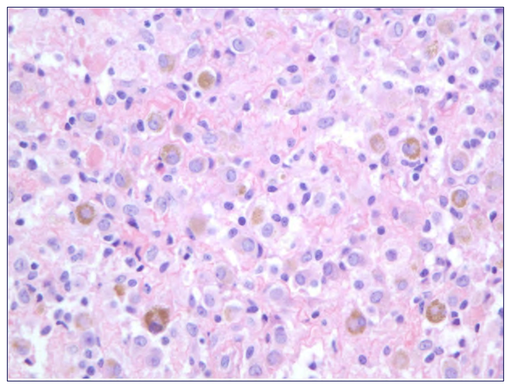

**Figure 2:** Histologic analysis confirmed the diagnosis of PVNS

**REFERENCES**

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**Figure 3:** After treatment with arthroplasty

## DISCUSSION

PVNS is a disorder characterized by synovial proliferation.

There are only two previous case reports of patients who were diagnosed with PVNS during pregnancy, both of whom had monoarticular involvement of the knee.

## CONCLUSIONS

- Synovectomy is the mainstay of surgical treatment of PVNS.
- Although, in patients with extensive articular involvement, synovectomy and arthroplasty may be required.
- The current understanding is that cytokines have a trophic influence leading to growth of the tumor.
- Further studies are needed to establish a definitive connection between PVNS and pregnancy.