# Uterine Fibroid Embolization Case Study

### Patient Profile

- **Age:** 42-year-old female
- **Gravida/Para:** G2P2
- **Referral Reason:** Symptomatic uterine fibroids

#### History of Present Illness

- Several-year history of progressively worsening menorrhagia
- Menses lasting 8–10 days with passage of clots
- Pelvic pressure and bloating
- Urinary frequency
- Fatigue
- Symptoms interfering with daily activities and quality of life

## Prior Management

- Trial of hormonal therapy without adequate symptom control
- Declined surgical management (hysterectomy)
- Sought minimally invasive, uterus-sparing option

# Contraindications to Uterine Fibroid Embolization

**Absolute Contraindications**

- Pregnancy
- Suspected or confirmed uterine, cervical, or adnexal malignancy
- Active pelvic infection
- Uncorrectable coagulopathy
- Severe contrast allergy not amenable to premedication
- Severe renal insufficiency precluding contrast administration

**Relative Contraindications / Considerations**

- Predominantly pedunculated subserosal fibroids
- Postmenopausal status
- Prior uterine radiation or extensive pelvic surgery
- Significant atherosclerotic pelvic disease limiting safe access

**This Patient**

- No absolute contraindications identified
- MRI findings and clinical history supported candidacy for UFE

# Workup

## Relevant Labs

- Mild iron-deficiency anemia
- INR<3 and PLTs>50,000
- No contraindications to embolization

## Pre-Procedure Imaging

**Pelvic MRI with Contrast**

- Enlarged uterus with multiple fibroids
- Combination of intramural and submucosal leiomyomas
- Dominant intramural fibroid measuring **8.6 x 7.6 cm**
- Typical imaging characteristics:
    - T2 hypointense
    - Post-contrast enhancement
- No imaging features concerning for malignancy

# MR Pelvis

Multi-fibroid uterus conta ne fibroids.

The largest (#2) is an int ng 8.6 x 6.4 x 7.6 cm. The fibro

No suspicious lesions

# Assessment & Candidacy

**Assessment**

- Symptomatic uterine leiomyomas refractory to medical management

**UFE Candidacy**

- Symptoms correlate with fibroid burden
- Favorable MRI appearance
- Desire for uterine preservation
- No contraindications identified

## Procedure Overview

**Procedure**

- Bilateral uterine artery embolization

**Access**

- Left radial artery after confirmed patency of palmar arch

**Anesthesia**

- Moderate sedation with superior hypogastric nerve block

**Goal**

- Targeted devascularization of fibroids while preserving normal myometrium

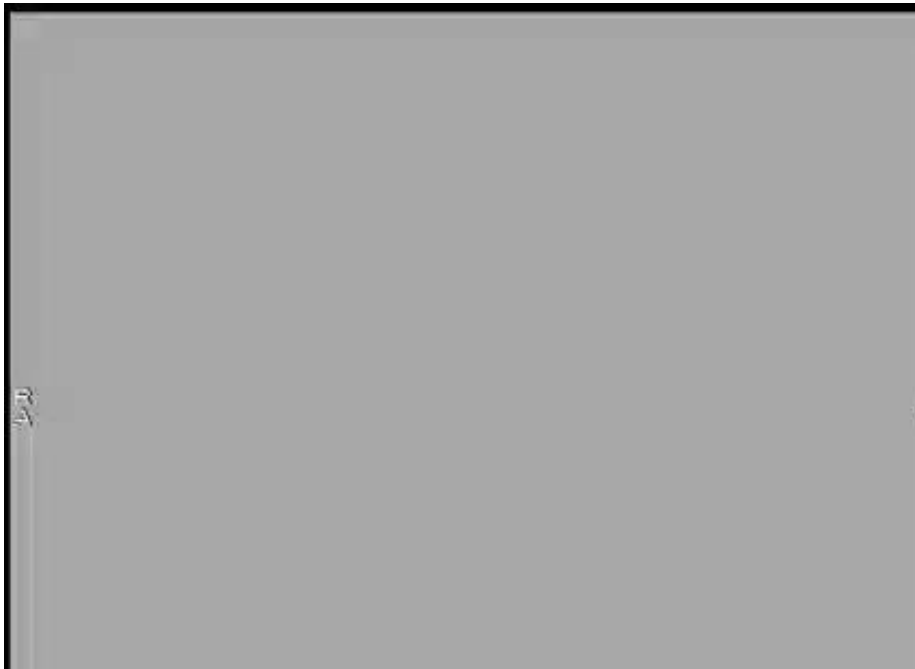
# Angiographic Findings

- Pelvic angiography demonstrating uterine arterial anatomy
- Initial selective angiogram of the left uterine artery demonstrating prominent

# Left uterine artery angios

Pre: Selective angiography of the left uterine artery prior to embolization.

Post: Post-embolization angiography of the left uterine artery demonstrating appropriate embolization endpoint with arterial stasis.



# Embolization Technique

- Selective catheterization of bilateral uterine arteries
- Embolization using calibrated microspheres
- Embolic delivery to angiographic near-stasis
- Preservation of non-target pelvic branches

## Procedural Metrics

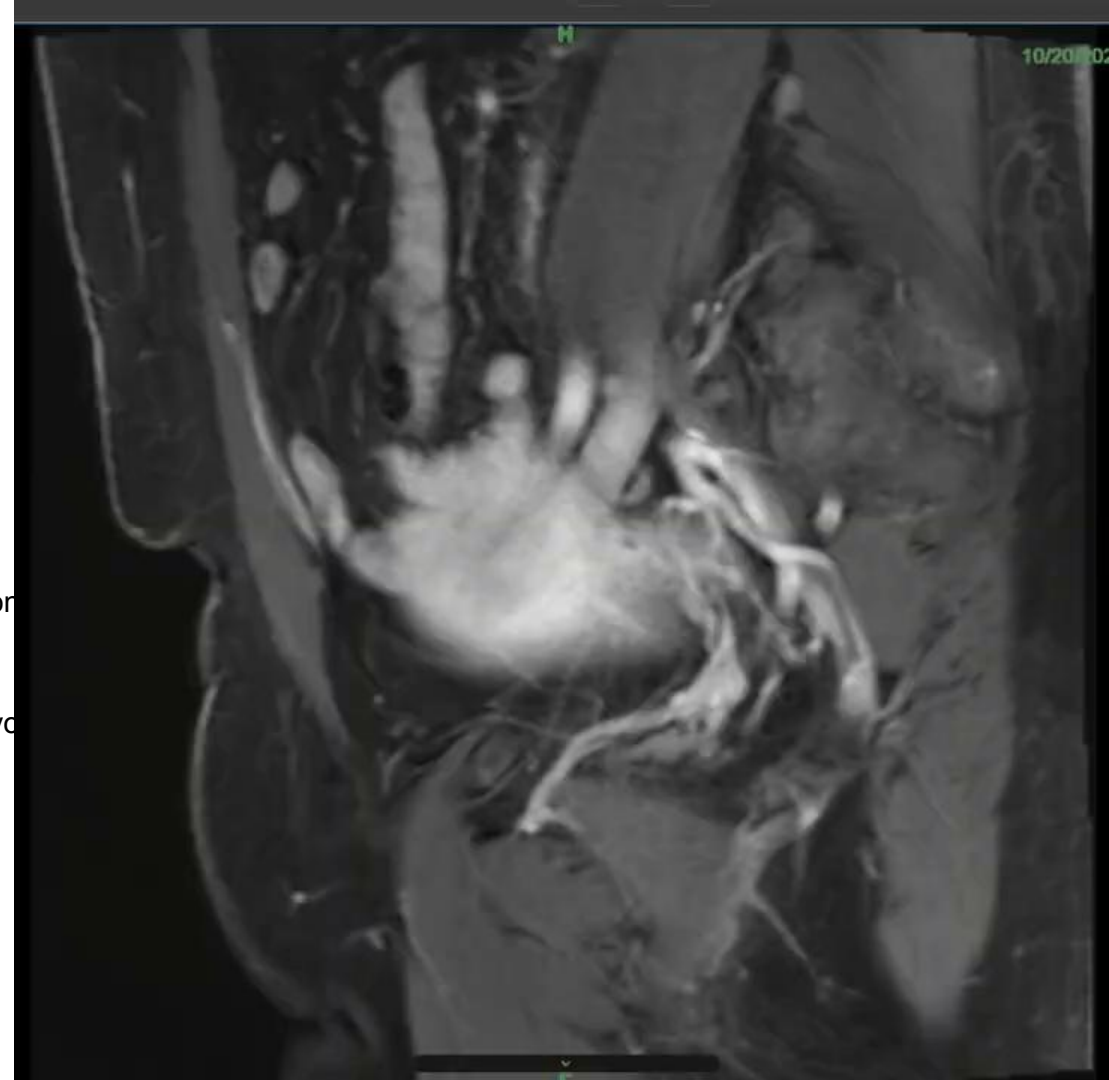
- **Anesthesia:** Moderate IV sedation with superior hypogastric nerve block
- **Embolic material:**
  - PVA particles (355–500 μm and 500–710 μm)
- **Fluoroscopy time:** 14.5 minutes
- **Radiation dose:**
  - Air Kerma: 200 mGy
  - DAP: 50.1 Gy·cm²
- **Contrast volume:** 80 mL (Omnipaque 300)
- **Complications:** None

# Post-Procedure Course

- Same-day discharge!
- Mild post-embolization syndrome - low-grade pelvic cramping lasting 4 days, returned to work POD5
- Managed with oral analgesics (scheduled Tylenol, PRN Oxycodone) and anti-inflammatory medications (Naproxen)
- No emergency visit or readmission

# Follow-Up & Outcomes

- **1 month:**
  - Significant improvement in bleeding
  - Reduced pelvic pressure
- **3–6 months:**
  - Normalization of menses
  - Bulk symptoms (urinary frequency and cor
  - Improved energy and quality of life
- **Imaging follow-up:** Interval reduction in fibroid vo



# Discussion

**Key Points**

- UFE is an effective option for symptomatic fibroids in selected patients
- Provides durable symptom relief with uterine preservation
- Avoids surgical morbidity and prolonged recovery
- MRI is critical for patient selection and procedural planning

# Insurance Coverage

Yes - covered by all payers.

Uterine fibroid embolization (UFE) is widely covered by Medicare and most commercial insurers as a medically necessary, evidence-based treatment for symptomatic uterine fibroids. Coverage has been established since the mid-2000s and is supported by national society guidelines and randomized clinical trial data. Approval typically requires documentation of fibroid-related symptoms, appropriate imaging, failure or intolerance of medical therapy, and exclusion of pregnancy or malignancy. Prior authorization is commonly required, but UFE is no longer considered investigational.

# Conclusion

- Successful bilateral UFE performed without complications
- Significant clinical improvement achieved
- UFE remains a well-established, minimally invasive treatment option for women with symptomatic uterine fibroids

# Take-Home for Referrers

- Consider UFE for patients with:
    - Symptomatic fibroids
    - Failure or intolerance of medical therapy
    - Desire to avoid surgery
- Early referral allows broader treatment options

# When to Consider Referral for UFE

Patients who may benefit from uterine fibroid embolization (UFE) typically include:

- Symptomatic uterine fibroids causing heavy menstrual bleeding, pelvic pain/pressure, bulk-related symptoms, or anemia
- Failure of or intolerance to medical therapy (e.g., hormonal management, tranexamic acid)
- Desire for uterine preservation and avoidance of hysterectomy
- Fibroids confirmed on imaging (MRI or ultrasound) without features suspicious for malignancy
- Patients seeking a minimally invasive alternative to surgery
- Patients with comorbidities that increase surgical risk or make open or laparoscopic surgery less desirable

Patients with predominantly pedunculated subserosal fibroids or atypical imaging features are evaluated carefully and may be better served with alternative therapies.