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Title of the presentation :

"Bilateral Uterine Artery Embolization for Scar Site Ectopic: A Rare Case from a Tertiary Care Centre"

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## Introduction

- Scar ectopic pregnancy (SEP), where an embryo implants within the site of a previous cesarean section scar, is a rare form of ectopic pregnancy with an incidence of less than 0.05% of all pregnancies.
- SEP is associated with significant complications, including uterine rupture and massive hemorrhage, which can lead to hysterectomy or even maternal death.
- Traditional treatments for SEP include systemic methotrexate therapy, curettage, or surgical resection, but each has limitations, particularly concerning fertility preservation.
- Recently, interventional radiology techniques such as UAE have shown promise in controlling bleeding and avoiding surgery. This report presents a novel application of bilateral UAE in managing SEP.

## Aims & Objectives:

- This study aims to report and analyze the efficacy of bilateral uterine artery embolization (UAE) in managing a rare and challenging case of scar site ectopic pregnancy, encountered at a tertiary care hospital.
- Given the unique presentation and risks associated with scar ectopic pregnancies, our goal was to use UAE as a minimally invasive approach to control hemorrhage and preserve the patient's fertility.

## Presentation:

A 39-year-old female patient with a history of two cesarean sections presented to our tertiary care hospital with complaints of vaginal bleeding and lower abdominal pain. UPT came positive and imaging via ultrasound confirmed a rare diagnosis of scar site ectopic pregnancy without cardiac activity. At first patient was managed systemic methotrexate therapy followed by diagnostic laparoscopy was performed but patient vitally worsened due to continuous PV bleed.

## Decision for Bilateral Uterine Artery Embolization

Given her history, the high risk associated with the pregnancy, and her desire for fertility preservation, a multidisciplinary team, including gynecologists, interventional radiologists, and anesthesiologists, reviewed her case. The team decided on bilateral uterine artery embolization (UAE) to minimize vascular flow to the ectopic site, thereby inducing ischemia and allowing the ectopic tissue to resolve naturally.

## UAE Procedure

The UAE was performed under local anesthesia . The key steps included:

1. Vascular Access: The right femoral artery was accessed using a 6-French vascular sheath.
2. Selective Catheterization and Imaging: A 5-French Cobra catheter and 5French SIM1 catheter was used to selectively catheterize the left and right uterine arteries. Angiography revealed extensive blood supply to the scar ectopic pregnancy, confirming the need for embolization.
3. Embolization: Polyvinyl alcohol (PVA) particles measuring 350-500 um were slowly injected into each uterine artery until there was significant reduction in flow to the ectopic pregnancy site, achieving near-complete occlusion.
4. Completion: Post-embolization angiography verified bilateral occlusion of the uterine arteries. Hemostasis was achieved at the femoral access site with manual compression, and the patient was moved to a recovery area.

## Post-Procedure Monitoring

The patient remained stable post-procedure, experiencing mild pelvic pain and a low-grade fever, which was managed conservatively. She was discharged the following day with instructions to monitor for pain, fever, or signs of infection.

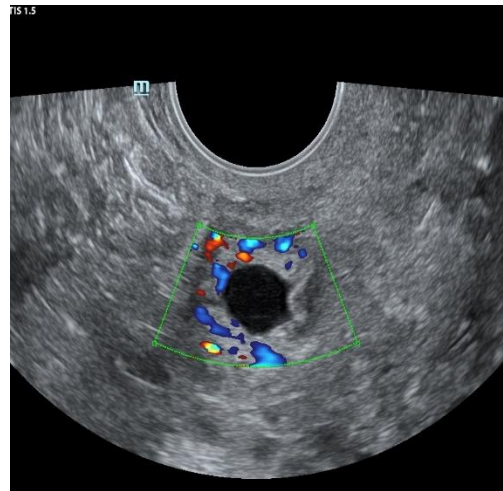
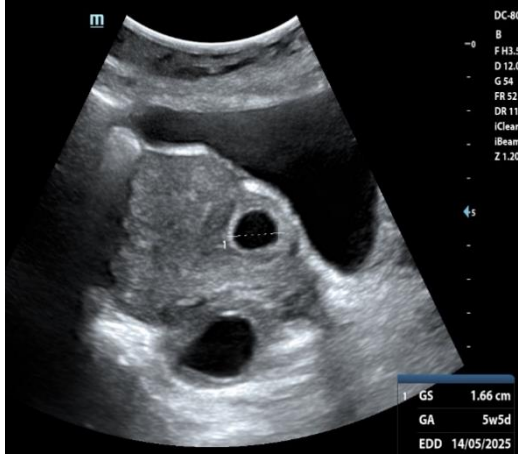
## Results:

- Following the procedure, the patient experienced a rapid cessation of bleeding and progressive reduction in the size of the ectopic mass.
- During follow-up, no significant complications were observed.
- The bilateral UAE approach proved successful in managing this complex case while minimizing invasive procedures.



# Representative images:

## DIAGNOSIS



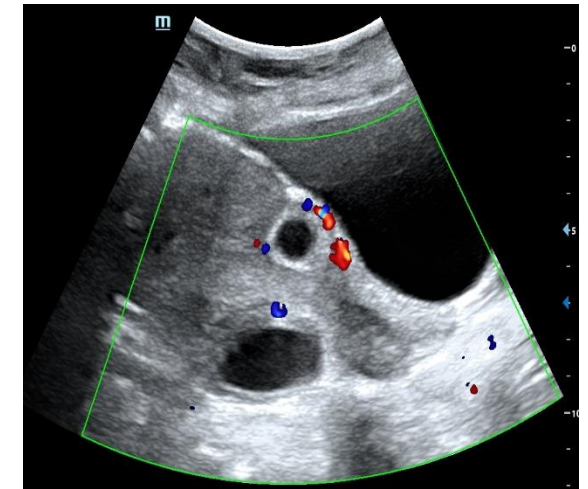
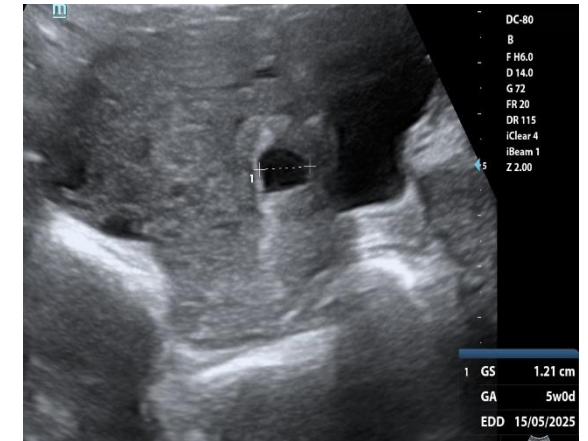
## Pre UAE



## Post UAE



## Follow up



## Conclusions:

This rare case highlights the effectiveness of bilateral uterine artery embolization in managing scar site ectopic pregnancies. As a minimally invasive intervention, UAE provides an important treatment option for complex cases where traditional surgery poses high risks. This case underscores the need for further research on UAE's role in similar scenarios, especially in tertiary care settings where advanced resources are available.

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