

Objective

To present laparoscopic uterine artery coagulation (LUAC), a novel uterine sparing technique, for managing irregular, heavy vaginal bleeding unresponsive to medical therapy.

Background

A 33-year-old woman (G5P2) with a history of heavy, irregular vaginal bleeding unresponsive to medical therapy. Despite multiple treatments, including oral medroxyprogesterone, tranexamic acid (TXA), and GnRH analogues, her symptoms persisted. Extensive investigations, including hysteroscopy, endometrial biopsy, CT angiogram, and 3D ultrasound, revealed no abnormalities.

Given her strong desire to preserve the uterus and the absence of embolizable large vessels, uterine artery embolization (UAE) was deemed unsuitable. After a multidisciplinary team (MDT) discussion, she was offered LUAC as an alternative treatment.

Outcomes & Discussion

- Follow-up at 3 and 6 months:** The patient reported complete resolution of symptoms, with light, regular menstruation lasting 3–4 days.
- Quality of Life Improvement:** Significant improvement in overall well-being postoperatively.
- Fertility Outcome:** Seven months post-surgery, the patient conceived naturally but unfortunately experienced a tubal ectopic pregnancy, which was managed with methotrexate.

Significance:

For patients with refractory AUB desiring uterine preservation, treatment options are limited. Hysterectomy remains the definitive solution, while UAE and uterine artery ligation are primarily employed in fibroid-related cases. LUAC presents a promising alternative for non-fibroid AUB cases, offering a novel approach that preserves uterine integrity.

Future Considerations:

The literature on LUAC for non-fibroid AUB remains scarce. Further studies and long-term follow-ups are essential to assess fertility outcomes and establish LUAC as a viable alternative to hysterectomy or UAE.

Procedure

- Laparoscopic access was achieved, and the posterior leaf of the broad ligament was dissected to the uterine isthmus.
- The uterovesical fold was opened, and the bladder was carefully reflected downward.
- Peritoneal windows were created bilaterally, and the uterine arteries were skeletonized.
- The ascending branches of the uterine arteries were coagulated bilaterally using harmonic energy.
- The uterovesical fold was closed with 2-0 Vicryl sutures.