

## Your abstract submission has been received

Print this page

You have submitted the following abstract to the ASRM 2025 Scientific Congress & Expo. Receipt of this notice does not guarantee that your submission was complete or free of errors.

---

### TIME TO UNDETECTABLE HCG FOLLOWING EARLY PREGNANCY LOSS IN ART PREGNANCIES: A COMPARISON OF MANAGEMENT STRATEGIES

Atoosa Ghofranian, M.D.<sup>1</sup>, Morgan Baird, MPH<sup>2</sup>, Hajer Naveed, BA<sup>1</sup>, Jiwoo Park, BA<sup>1</sup>, Rebecca Zhuo, M.D.<sup>1</sup>, Joseph A. Lee, BA<sup>2</sup>, Alan B. Copperman, M.D.<sup>2</sup> and Erkan Buyuk, M.D.<sup>2</sup>, (1)Icahn School of Medicine at Mount Sinai, New York, NY, (2)Reproductive Medicine Associates of New York, New York, NY

**Title:**

TIME TO UNDETECTABLE HCG FOLLOWING EARLY PREGNANCY LOSS IN ART PREGNANCIES: A COMPARISON OF MANAGEMENT STRATEGIES

**Submitter's E-mail Address:**

atoosagmd@gmail.com

**Preferred Presentation Type:**

Oral or Poster

**Study Type:**

Retrospective Cohort Study (includes comparator groups)

**Category - Subcategory(ies):**

Complex Family Planning: Pregnancy Loss Management

**Funding:**

NA

\* Submission of an abstract for consideration for presentation implies that the presenting author & associated co-authors have legal and ethical rights to submit and present this work. Plagiarism and submitting work that an author has no rights to, will result in an investigation and penalty.

\* I verify that I am in compliance with HIPAA standards to protect the privacy of the patients discussed in my presentation(s). I either have received written authorization from the patient, have removed any identifiable images or patient records from my presentation, or my presentation does not pertain to patient treatment.

**Permissions - Prior Publication or Presentation**

This abstract contains original work, not published or presented previously at a meeting of another national or international scientific organization prior to this meeting and has not been submitted for publication at the time of this submission.

**ACCME Disclosure**

Nothing to disclose. No off-label or otherwise non-approved product use.

**Did this abstract require approval by a local Institutional Review Board (IRB) or equivalent?**

This abstract has been approved by a local Institutional Review Board (IRB) or equivalent.

### **Not applying for an award**

#### **Abstract Text:**

**OBJECTIVE:** Approximately 15-20% of patients undergoing assisted reproduction technology (ART) experience early pregnancy loss (EPL), which can be managed through expectant, medical, or surgical approaches. While beta-human chorionic gonadotropin (hCG) levels decline regardless of management strategy, data on the time to resolution in ART pregnancies remains unclear. This study aims to compare the time to hCG resolution across different EPL management strategies in patients who have undergone ART.

**MATERIALS AND METHODS:** This retrospective cohort study evaluated time to undetectable hCG (< 2.5 IU/L) in single, euploid frozen embryo transfer cycles ending in missed abortion before 10 weeks' gestation (2013–2024). Only cases with hCG tracked to resolution and no prior vaginal bleeding were included. Patients were grouped by management approach: expectant, medical (misoprostol), or surgical (D&C). The primary outcome was time from diagnosis of early pregnancy loss to undetectable hCG. Statistical comparisons included Chi-square and Kruskal-Wallis tests, and a log-normal accelerated failure time model adjusted for gestational age, hCG level at diagnosis, and multiple treatments was used to estimate time ratios.

**RESULTS:** This study evaluated 315 patients with missed abortion managed expectantly (n=121), medically (n=108), or surgically (n=86). General demographics were comparable between the two groups. While general demographics were similar, gestational age and hCG levels at diagnosis differed significantly among groups ( $p < 0.0001$ ). The length of time from diagnosis of EPL to undetectable hCG was significantly longer in patients who underwent surgical management (expectant: 29.0 days (20.0 - 48.0), medical: 34.0 (25.0 - 45.5), surgical: 42.0 days (35.0 - 57.0),  $p < 0.0001$ ). After adjusting for gestational age, serum hCG level at diagnosis of EPL, and multiple treatments, the length of time from diagnosis of EPL to undetectable serum hCG was significantly shorter in patient who underwent expectant (aTR 0.85 (0.75 - 0.95)) and medical management (aTR 0.86 (0.77 - 0.97)) groups compared to those who received surgical management.

**CONCLUSIONS:** Patients treated for EPL with D&C showed significantly longer time to serum hCG resolution compared to those managed with expectant and medical approaches, even after adjusting for gestational age and serum hCG at time of MAB diagnosis. A possible biological explanation for this difference could be the uterine contractions induced by both expectant and medical management, which may promote more complete evacuation of trophoblastic tissue. In contrast, surgical management, thought effective at removing visible products of conception, may be less efficient in stimulating endogenous uterine contractility and subsequent physiological clearance, potentially contributing to prolonged hCG persistence.

**IMPACT STATEMENT:** Expectant, medical, and surgical management are all viable options for missed abortion, each with associated risks and benefits; however, our study highlights differences in time to resolution as an important factor to consider.

#### First Presenting Author

#### **Presenting Author**

---

Atoosa Ghofranian, M.D.

**Email:** atoosagmd@gmail.com -- Will not be published

Icahn School of Medicine at Mount Sinai  
Obstetrics, Gynecology, and Reproductive Science  
1176 Fifth Ave, Klingenstein Pavilion  
New York NY 10029  
USA

Within the past 2 years, have you or your spouse/partner had any potential COI?

No

Signature: Atoosa Ghofranian, M.D.

### CV Upload:

 CV 2021.pdf

### Second Author

---

Morgan Baird, MPH

**Email:** mbaird@rmaofny.com -- Will not be published

Reproductive Medicine Associates of New York  
635 Madison Avenue  
10th Fl.  
New York NY 10022-1009  
USA

Within the past 2 years, have you or your spouse/partner had any potential COI?

No

Signature: Morgan Baird, MPH

### Third Author

---

Hajer Naveed, BA

**Email:** hajer.naveed@icahn.mssm.edu -- Will not be published

Icahn School of Medicine at Mount Sinai  
Obstetrics, Gynecology, and Reproductive Science  
1176 Fifth Ave, Klingenstein Pavilion  
9th Floor  
New York NY 10029  
USA

Within the past 2 years, have you or your spouse/partner had any potential COI?

No

Signature: Hajer Naveed

**CV Upload:**

 Hajer Naveed \_ CV.pdf

Fourth Author

---

Jiwoo Park, BA

**Email:** jiwoo.park@icahn.mssm.edu -- Will not be published

Icahn School of Medicine at Mount Sinai  
Obstetrics, Gynecology, and Reproductive Science  
1176 Fifth Ave, Klingenstein Pavilion  
9th Floor  
New York NY 10029  
USA

Within the past 2 years, have you or your spouse/partner had any potential COI?

No

Signature: Jiwoo Park



**CV Upload:**

 [Park, Jiwoo\\_CV\\_April2024.pdf](#)

Fifth Author

---

Rebecca Zhuo, M.D.

**Email:** [Rebecca.zhuo@mountsinai.org](mailto:Rebecca.zhuo@mountsinai.org) -- Will not be published

Icahn School of Medicine at Mount Sinai  
Obstetrics, Gynecology, and Reproductive Science  
1176 Fifth Ave, Klingenstein Pavilion  
New York NY 10029  
USA

Within the past 2 years, have you or your spouse/partner had any potential COI?

No

Signature: Rebecca Zhuo, MD

**CV Upload:**

 [Rebecca Zhuo CV.pdf](#)

**Sixth Author**

---

Joseph A. Lee, BA

**Email:** [jlee@rmany.com](mailto:jlee@rmany.com) -- Will not be published

Reproductive Medicine Associates of New York  
Director of Research Ops  
635 Madison Ave 10th Fl  
New York NY 10022-1009  
USA

Biographical Sketch Early success, marked by his first publication in CELL at Harvard Medical School, inspired Joseph to continue his research endeavors in reproductive endocrinology and infertility. Joseph has been with Reproductive Medicine Associates of New York since 2011. Joseph has authored over 400 peer-reviewed abstracts & manuscripts. Passionate about development, he cultivates relationship with investors & entrepreneurs to advance reproductive endocrinology & infertility care.

Within the past 2 years, have you or your spouse/partner had any potential COI?

No

Signature: Joseph Adam Lee

**CV Upload:**
 [Joseph Lee CV.docx](#)
Seventh Author

Alan B. Copperman, M.D.

**Email:** acopperman@rmany.com -- Will not be published

Reproductive Medicine Associates of New York  
 635 Madison Ave 10th Fl  
 New York NY 10022-1009  
 USA

Within the past 2 years, have you or your spouse/partner had any potential COI?

Yes

Organization Name	Relationship Type	Who has this Relationship?
Progyny	Company Officer Relationship Began - Friday, August 25, 2017	Self

Organization Name	Relationship Type	Who has this Relationship?
	Relationship Ended - Thursday, June 1, 2023 Paid Consultant Relationship Began - Relationship Ended - Direct Stockholder Relationship Began - Friday, August 25, 2017 Relationship Ended - Friday, November 1, 2024	

Signature: Alan B Copperman



#### CV Upload:

 Alan B. Copperman M.D. - CV (March 2024).docx

#### Eighth Author

Erkan Buyuk, M.D.

**Email:** ebuyuk@rmaofny.com -- Will not be published

Reproductive Medicine Associates of New York  
 635 Madison Ave Fl 10

New York NY 10022-1009  
USA

Within the past 2 years, have you or your spouse/partner had any potential COI?

No

Signature: Erkan Buyuk, M.D.

---

**If necessary, you can make changes to your abstract submission until Wednesday, April 30, 2025 at 4:00 pm (EDT).**

To access your submission in the future, use the link to your user portal from one of the automatic confirmation emails that were sent to you during the submission.

Or point your browser to <https://asrm.confex.com/asrm/2025/gateway.cgi>

You will be prompted to login with your ASRM account prior to accessing the user portal. If you do not yet have an ASRM account, the screen will redirect you to the site where you can register for a new account. When registering for a new ASRM account:

- Please use the email address that is associated with the submission and your first and last name as they appear on the submission when creating this account.
- An ASRM account for login must be completed before you can access the user portal.

Any changes that you make will be reflected instantly in what is seen by the reviewers. You DO NOT need to go through all of the submission steps in order to change one thing. If you want to change the title, for example, just click "Title" in the abstract control panel and submit the new title.

When you have completed your submission, you may close this browser window.

If you would like to submit another abstract, click [here](#).

[Tell us what you think of the abstract submission process](#)

[Home Page](#)