Is active (vs expectant) management of a persistent PUL more effective?

Yes. According to a randomized trial that included 255 participants, active management of pregnancy of unknown location (PUL) more often led to pregnancy resolution without additional intervention than expectant management (51.5% vs 36.0%). However, patients have strong treatment preferences.

Barnhart K, Hansen KR, Stephenson MD, et al; Reproductive Medicine Network. Effect of an active vs expectant management strategy on successful resolution of pregnancy among patients with a persisting pregnancy of unknown location: the ACT or NOT randomized clinical trial. JAMA. 2021;326:390-400.

EXPERT COMMENTARY

Sarah Gutman, MD, MSPH, is a Fellow in Complex Family Planning, Department of Obstetrics and Gynecology, University of Pennsylvania, Philadelphia.

Courtney A. Schreiber, MD, MPH, is Stuart and Emily B.H. Mudd Professor of Human Behavior and Reproduction, and Chief of the Division of Family Planning, Department of Obstetrics and Gynecology, Perelman School of Medicine, University of Pennsylvania, Philadelphia.

FAST TRACK

Data on the potential for 3 management options (expectant management, empirical methotrexate, uterine evacuation with methotrexate as needed) to achieve pregnancy resolution is valuable for patients and clinicians choosing a treatment plan

Among patients with persistent PUL, it can be difficult to distinguish between ectopic pregnancy and an early nonviable intrauterine pregnancy.[1] If untreated, ectopic pregnancy can lead to serious morbidity and mortality.[2] Management options for persistent PUL include expectant management, empirical methotrexate, or diagnostic uterine evacuation with methotrexate as needed. Data on the potential for these options to achieve pregnancy resolution is valuable for patients and clinicians choosing a treatment plan.

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Details of the study

Barnhart and colleagues conducted a multicenter, randomized controlled trial that enrolled 225 women with persistent PUL (defined by transvaginal ultrasound imaging without a definitive intrauterine or extrauterine gestation and at least 2 consecutive human chorionic gonadotropin [hCG] values with less than a 15% rise per day). Participants were randomly assigned to 1 of 3 treatment groups: expectant management, empirical methotrexate, or uterine evacuation followed by methotrexate if needed.

The primary outcome was pregnancy resolution without a change in management strategy. A secondary outcome was noninferiority of empirical methotrexate compared with uterine evacuation with methotrexate as needed in achieving pregnancy resolution.

Results. The active management groups were significantly more likely to achieve pregnancy resolution without changing strategies than the expectant management group (51.5% vs 36.0%; difference, 15.4%). However, 39% of enrolled participants declined their randomized allocation and crossed over into a different management strategy.

Empirical methotrexate was found to be noninferior to uterine evacuation followed by methotrexate as needed in achieving pregnancy resolution (54.9% vs 48.3%; difference, 6.6%).

Study strengths and limitations

Prior studies of hemodynamically stable patients with persistent PUL or stable

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WHAT THIS EVIDENCE MEANS FOR PRACTICE

Patients with a persistent PUL who undergo active management with either empirical methotrexate or uterine evacuation followed by methotrexate are more likely to experience pregnancy resolution without a change in management strategy than those who undergo expectant management. Given the safety of all 3 options and demonstrated patient preferences, shared decision making should be used when determining a management plan.

SARAH GUTMAN, MD, MSPH, AND COURTNEY A. SCHRIEBER, MD, MPH

tubal ectopic pregnancy and low initial hCG values (<2,000 IU/L) failed to demonstrate that active management with methotrexate or uterine evacuation leads to more successful or faster pregnancy resolution.[3-5] Barnhart and colleagues' study results, however, found that active management with 2-dose empirical methotrexate or uterine evacuation was more likely to lead to pregnancy resolution without requiring a change in management plan than was expectant management. The authors performed both an intention-to-treat and an as-treated analysis to confirm results.

The 39% crossover rate between the treatment groups likely reflected both patient preference and clinical presentation, potentially biasing the results. The low overall rate of adverse events confirms the safety and acceptability of a patient-centered approach to persistent PUL management. ●

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