

Current Trends in UAE

Robert L. Worthington-Kirsch, MD, discusses new data findings, clinical decision making, and building your patient base and referral network.



What have the current and recent trials shown with regard to the safety and effectiveness of uterine artery embolization (UAE)?

The current studies continue to show that UAE is a safe and effective procedure. We are working toward refinements of the technique, especially embolizant choice and protocol, to optimize the procedure. We are also getting increasing evidence about UAE and fertility, which balances previous publications that indicated poor pregnancy outcomes after UAE but were of extremely poor scientific value.

With numerous embolic products currently available, some of which are seemingly similar to others, how do you decide which to use in a given case?

I use calibrated hydrogel microspheres for UAE—indeed, for almost all embolization procedures. These have the best combination of properties—especially consistent size and resistance to clumping—that make for the most predictable embolization. I prefer to use products that have good scientific evidence for efficacy.

Are some types of embolic materials better suited for one patient's anatomy than another's?

I am not sure that there are specific anatomical considerations that influence embolic choice for UAE for fibroid disease. There does appear to be emerging evidence supporting UAE for adenomyosis, particularly using smaller particles than we use for fibroid disease. I am waiting for more data in this area.

What are some of the unfavorable trends that have been seen, either in clinical trials or in your own experience?

In other words, are there specific patients in whom UAE should not be attempted, or types of embolic materials that should not be used in UAE?

I think that it is clear that spherical nonhydrogel polyvinyl alcohol should not be used for UAE. Despite early encouraging results with that material, Spies' work clearly shows that this material cannot be relied upon for a good UAE outcome.^{1,2} Personally, I find "classic" irregular polyvinyl alcohol difficult to use because of catheter clogging and because the level of embolization is unreliable.

Also, I think many clinicians are refusing to treat some patients that can be treated successfully with embolization. This is particularly true for patients with large fibroid burdens. They do generally respond well to UAE, providing that there is clear communication regarding expected outcomes (especially volume reduction and cosmesis).

What do future trials still need to explore? If you were to design a study, what would it entail?

We need a lot more information about the embolic agents available and the new embolic agents just coming on the market. Any studies done now would have to be prospective, randomized controlled trials of adequate power. Ideally, I would like to see a large fertility study comparing UAE and myomectomy, but that is unlikely to ever happen. Such a study would require very large numbers of women and would take a long time—5 years or more—to get any useful results. I don't see the energy or funding available for such a large and expensive study.

How would you describe the learning curve for physicians adopting UAE into their practices? Does it vary among products?

I am not sure that the learning curve varies between embolic agents. Interventional radiologists (IRs) still need

to be familiar with the entire body of literature, and they should ideally seek out another IR with extensive UAE experience to serve as a mentor.

How has the relationship between interventionists who perform UAE and gynecologists evolved in the years since this procedure first started to gain acceptance?

I think that more and more gynecologists are open to UAE for their patients. The major obstacle continues to be that many IRs continue to not make the commitment to clinical patient care before and after UAE that is necessary for this procedure to succeed in the long term. I still hear about IRs who do not see patients for a face-to-face office consultation before UAE, and even more do not provide any post-UAE care or follow-up.

Are you seeing partnerships with referring gynecologists, or educational programs for referring doctors or patients regarding the benefits of these procedures?

I am seeing these things on a local basis here and there. Those IRs who have made the commitment to “do it right” continue to expand their referral bases and build better relationships with their local gynecology communities.

How can physicians effectively get the word out to their communities that they offer UAE in their practice?

All such advertising is ultimately local. Reaching out to the gynecology community, sponsoring public informational meetings, etc., continue to be successful ways of growing a UAE practice. Time and effort need to be invested, but it pays off in increased referrals for UAE and other disease entities such as venous disease and pelvic congestion. ■

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2. Spies JB, Allison S, Flick P, et al. Spherical polyvinyl alcohol versus tris-acryl gelatin microspheres for uterine artery embolization for leiomyomas: results of a limited randomized comparative study. *J Vasc Interv Radiol.* 2005;16:1431-1437.