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Acupuncture in IVF

HOW EAST MET WEST

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Historical Perspective

Research demonstrates that women who receive acupuncture in combination with their high-tech fertility treatments improve reproductive outcomes.¹⁻¹¹ This research has been published in the scientific literature and has helped to thrust acupuncture into the spotlight as a valuable adjunct to high-tech fertility options.⁷⁻¹¹

In a survey of more than 100 members of the American Society for Reproductive Medicine (Philadelphia, ASRM, 2004), each and every physician raised their hands denoting that "yes" they do have patients receiving acupuncture, but "no" they don't "recommend" it. This trend in the use of TCM in conjunction with high-tech fertility treatment seems to be patient-driven, as research increasingly demonstrates improved outcomes and is reported in the media.

How It All Began

When Diane Cridennda, LAc, opened her practice in 1996, she made it her personal goal to create a relationship between East and West. She made an appointment to meet with the new reproductive endocrinologist in town, Dr. Paul Magarelli, to tell him the benefits of acupuncture combined with IVF. At her initial meeting with Dr. Magarelli, Diane recalls that when she gave him her acupuncture spiel, he smiled and then kindly scooted her out of his office. Diane recalls: "He pretty much just smiled and said, OK, show me the data to support your claims."

In 1996, Stener-Victorin² reported on uterine blood flow in patients who received acupuncture. This study was followed by research conducted by Paulus, et al.,¹ in 2002, which demonstrated improved pregnancy rates in IVF patients who were treated with acupuncture just before and after embryo transfer. Diane presented these studies to Dr. Magarelli. Because these two studies were reported in Western journals of known repute, he took notice and "allowed" his patients access to acupuncture.

Recently, there have been three randomized controlled trials (RCTs) and even sham controlled studies published in *Fertility & Sterility* reporting on the impact of acupuncture combined with IVF.¹²⁻¹⁴ These studies, we suspect, will increase the awareness and possible acceptance of TCM in this field.

Over the next year Dr. Magarelli encountered a few extremely difficult or "poor prognosis patients." He knew that he would be able to help them in a limited capacity. He decided to "share them" with Diane for acupuncture, since he really believed it could do no harm. Voila - they actually responded to the combination of acupuncture and medications and got pregnant! The rest is history, and now this East-West combo is the standard of care in DR. Magarelli's practice.

Cridennda and Magarelli have subsequently studied the impact of acupuncture on IVF outcomes in more than 300 patients. They have presented their data at the ASRM (American Society of Reproductive Medicine); the PCRS (Pacific Coast Reproductive Society), the 12th Congress on Human Reproduction in Venice Italy, the SAR (Society for Acupuncture Research), and the AAMA (American Academy of Medical Acupuncture). They recently returned from London, where they presented their findings to the AARC (Acupuncture Research Resource Centre) Thames Valley University.

Publication and Proof

In most Eastern acupuncture clinics, the motivation to prove that acupuncture works is neither that compelling nor necessary. A patient comes in with back pain, needles are placed and the pain goes away. This is what we call "clinical" experience. The acupuncturist doesn't need a RCT to prove its efficacy. TCM has been used for thousands of years and it has a pretty good track record. However, in the Western world, this is not the case. Recently, sham, double-blinded, three-arm studies have attempted to satisfy Western rigor and finally meet "Western standards of research".¹²⁻¹⁴ Acceptance of these rigorous RCTs has proven to be a difficult task at best.

Since 2003, Cridennda and Magarelli have served as co-investigators on five studies combining acupuncture with ART (assisted reproductive techniques):

1. "Acupuncture and IVF Poor Responders: A Cure?" Magarelli and Cridennda, 2004.
2. "Acupuncture and Good Prognosis IVF Patients: Synergy" Magarelli, Cridennda and Cohen, 2004
3. "Acupuncture: Impact on Pregnancy Outcomes in IVF Patients" Magarelli, Cridennda and Cohen, 2004
4. "Improvement of IVF Outcomes by Acupuncture: Are Egg and Embryo Qualities Involved?" Magarelli, Cridennda and Cohen, 2005
5. "Acupuncture and *In Vitro* Fertilization: Does the Number of Treatments Impact Reproductive Outcomes?" Cridennda, Magarelli and Cohen, 2005

The outcomes have been phenomenal. poor prognosis patients treated with acupuncture were more likely to get pregnant, have lower miscarriage rates, suffer fewer ectopics and, most importantly, have more take-home babies! As an added bonus, they seemed to have fewer multiples.

This research, along with the growing body of rigorous Western-style RCTs, demonstrates that adding acupuncture to IVF protocols results in increased pregnancies, fewer ectopics, fewer miscarriages, a trend toward fewer multiples, as well as a marked increase in take-home babies. Couples benefit in three important ways:

- Gives women some semblance of active control and involvement in their care by opting to add acupuncture to their high-tech fertility treatments;
- Acupuncture will add an estimated 15 percent more pregnancies in an IVF series. For some couples, this may make the difference between creating a family or not creating one.
- Adding acupuncture to an IVF cycle reduces miscarriages, ectopics and multiples; this benefit is reaped by not only the patients but society in general by reducing hospital costs. According to Diane Cridennda, acupuncture gives her patients a small sense of control by choosing acupuncture, thereby taking an active role at a time when they can feel helpless and hopeless. This benefit is priceless.

Diane thinks it has been a long and arduous journey getting Eastern and Western medicine to join forces. Eastern medicine doesn't and probably never will fit into the Western box, however; Dr. Magarelli feels strongly that we must continue to bridge the gap to create synergy between East

and West, offering the best care for our patients.

References

1. Paulus WE, Zhang M, Stehler E, El-Danasouri I, Sterzik K. Influence of acupuncture on the pregnancy rate in patients who undergo assisted reproduction therapy. *Fertil Steril*, 2002;77:721-724.
2. Stener-Victorin E, Waldenstrom U, Andersson SA, Wikland M. Reduction of blood flow impedance in the uterine arteries of infertile women with electro-acupuncture. *Hum Reprod*, 1996;11:1314-1317.
3. Emmons SL, Patton P. Acupuncture treatment for infertile women undergoing intracytoplasmic sperm injection. *Medical Acupuncture, A Journal For Physicians By Physicians*, Spring / Summer 2000;12(2).
4. Paulus WE, Zhang M, Stehler E, Sterzik K. Motility of the endometrium after acupuncture treatment. *Fertil Steril*, September 2003;80(Supplement 3):131.
5. Quintero R. A randomized, controlled, double-blind, cross-over study evaluating acupuncture as an adjunct to IVF. *Fertil Steril*, 2004;81(Supplement 3):11-12.
6. Chang R, Chung PH, Rosenwaks Z. Role of acupuncture in the treatment of female infertility. *Fertil Steril*, 2002;78:1149-1153.
7. Magarelli P., Cohen M, Cridennda, D. Acupuncture and Good Prognosis IVF Patients: Synergy. Pacific Coast Reproductive Society , 2003.
8. Magarelli P., Cridennda, D. Acupuncture & IVF Poor Responders: A Cure? ASRM 2004.
9. Magarelli P., Cohen M, Cridennda, D. Improvement of IVF Outcomes by Acupuncture: Are Egg and Embryo Qualities Involved? Pacific Coast Reproductive Society, 2004.
10. Magarelli P., Cohen M, Cridennda, D. Acupuncture: Impact on Pregnancy Outcomes in IVF Patients. 12th World Congress on Human Reproduction, Venice, Italy, March 2005.
11. Magarelli P, Cohen M, Cridennda D. Acupuncture & IVF: Workshop on Male and Female Infertility. American Academy of Medical Acupuncture, Washington, D.C., 2006.
12. Westergaard LG, Mao Q, Kroglund M, Sandrini S, Lenz S, Grinsted J Acupuncture on the day of embryo transfer significantly improves the reproductive outcome in infertile women: a prospective, randomized trial. *Fertility and Sterility*, April 2006:1341-1346.
13. Dieterle S, Ying G, Hatzmann W, Neuer A Effect of acupuncture on the outcome of in vitro fertilization and intracytoplasmic sperm injection: a randomized, prospective, controlled clinical study. *Fertility and Sterility*, April 2006:1347-1351.
14. Smith C, Coyle M, Norman RJ Influence of acupuncture stimulation on pregnancy rates for women undergoing embryo transfer. *Fertility and Sterility*, April 2006: 1352-1358.