

Acupuncture & IVF Success – New Research

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New research measures the biochemical mechanisms by which acupuncture increases IVF (in vitro fertilization) success rates. The study notes that acupuncture improves both IVF success rates and successful pregnancy rates. In this randomized controlled study on laboratory rats, acupuncture was measured against a progestin group and a control group. The researchers concluded that, "Acupuncture could improve the poor receptive state of (the) endometrium due to mifepristone by promoting Th2 cytokines secretion and inhibiting Th1 cytokines to improve blastocyst implantation." A blastocyst is the embryonic structure of approximately 700-100 cells that forms 5 days after fertilization in humans.

Cytokines are proteins secreted by cells and are cell-signaling molecules used extensively in intercellular communication.

Successful pregnancies are proportional to higher levels of Th2 cytokines.¹ Higher levels of Th2 cytokines (IL-6 and IL-10) are present in healthy pregnancies whereas women with chronic miscarriages have higher serum levels of Th1 cytokines. The results show that acupuncture raises serum Th2 cytokines and lowers Th1 cytokines- exactly what is needed to prevent a miscarriage and to enhance IVF success rates.

References:

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2. Juan Gui, Fan Xiong, Jing Li, and Guangying Huang, "Effects of Acupuncture on Th1, Th2 Cytokines in Rats of Implantation Failure," *Evidence-Based Complementary and Alternative Medicine*, vol. 2012, Article ID 893023, 10 pages, 2012. doi:10.1155/2012/893023

TCM and Fertility Treatment

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A study at Tel Aviv University in Israel, published in last month's *Journal of Integrative Medicine*, found that a combination of TCM therapy - herbs (*Paeonia alba* and *Chuan xiong*) and acupuncture - and intrauterine insemination (IUI) resulted in conception by 65.5 per cent of the test group, compared with 39.4 per cent of the control group, which had only IUI treatment. The test group had 29 women aged between 30 and 45, and the control group had 94 women aged between 28 and 46.

Dr Shahar Lev-Ari and Keren Sela of the university's faculty of medicine say TCM aims to correct imbalances in the body's natural energy flow, promoting well-being. They say there are several theories as to why Chinese medicine can be beneficial to fertility rates, including the possibility that herbal remedies and acupuncture can affect the ovulation and menstrual cycle, enhance blood flow to the uterus, and enhance endorphin production and secretion to inhibit the central nervous system and induce calm - all of which can contribute to successful conception.

The link between TCM therapy and the menstrual cycle is further supported by a University of Adelaide study funded by the Australian government. With findings published in November by the journal *Complementary Therapies in Medicine*, the researchers reviewed

eight clinical trials, 13 other studies and case reports - a total of 1,851 infertile women - that compared the efficacy of TCM with Western drugs or in vitro fertilization treatment.

The overall analysis suggested that Chinese herbs were more effective: an average of 60 per cent pregnancy rate over four months compared with 30 per cent achieved with standard Western drug treatment. The difference, say the researchers, appeared to be due to TCM practitioners' careful analysis of the period when it's possible for a woman to conceive. Unlike Western fertility treatments, which aim to increase the chance of pregnancy through implantation, TCM aims to balance and heal the body to allow for natural conception. In traditional practice, the key to fertility is the health of the kidneys.

"In Chinese medical theory, the kidney is the internal organ which is responsible for reproduction, growth and ageing. Kidney deficiency is the most common cause of infertility," explains TCM physician Chew Say Yeow, president of the Singapore Acupuncture Association. The kidneys are the centre of the body's yin and yang. Kidney yin moistens and nourishes the body's organs and tissues, while kidney yang warms and promotes the functions of the organs and tissues.

A kidney yin deficiency in women may lead to irregular menstruation, including light discharge without blood clots, dizziness, red tongue with little fur, insomnia and a rapid pulse. In men, it causes poor sperm count and poor quantity and quality of seminal fluid. Its symptoms include premature ejaculation, restlessness, feeling hot at night, thirst and dark scanty urine. A rapid pulse is also common in men.

A yang deficiency may result in prolonged menstrual cycles, lack of menstrual discharge, lower back pain and a lack of sexual desire.

Men will suffer symptoms such as fatigue, impotence, low libido and pale tongue. Low sperm count and poor motility generally affect older men. A slow pulse is common. The liver and spleen are also important. A weak spleen may lead to blood deficiency because of poor circulation and anaemia. It manifests as late, absent or pale and scanty periods, dizziness, dry skin, pale tongue, abdominal pain after menstruation and weak pulse. Qi stagnation or deficiency in the liver can lead to abdominal pain, clotted and dark flow, tension and premenstrual breast tenderness.

Heat and dampness also contribute to infertility. "Heat and damp diseases are normally caused by spicy food or an unhealthy diet high in saturated and trans fat, leading to overweight," Chew says. An accumulation of damp heat in the genital region can result in abnormal discharge from the penis, painful urination, jock itch and a yellow tongue coating. In women, it manifests as irregular, delayed or absent periods, blood clots in menses, weight gain, and white, sticky vaginal discharge and more.

Finally, emotional factors play a crucial role. Stress, depression and anxiety can often affect fertility as they cause imbalances in yin, yang and qi, and can affect energy levels. To determine the cause of infertility, TCM physicians examine their patients by listening, smelling, inquiry and taking the pulse. A treatment plan is then formulated.

TCM treatments for fertility may consist of herbal formulations, acupuncture treatment or both. These remedies are hundreds of years old and are considered safe to use, even in tandem with Western treatments. "It is a misconception that TCM herbs would be contraindicated with other Western medicines," Chew says. "Herbal remedies for infertility usually have a nourishing effect or moisten the yin deficiency. In fact, experience has shown that many herbs actually supplement the effects of Western treatments and enhance the overall well-being of the

patient.” TCM can boost the effectiveness of Western treatments by increasing the stimulation of follicles and blood flow to the testicles to increase sperm count, and improving the thickness of the uterine lining. It can also be used to alleviate discomforts and side effects associated with Western treatments, such as hormonal injections.

However, caution is advised. For instance, patients on blood thinners such as aspirin or warfarin should not take herbs that help to clear blood stagnation. This is where informing the physician about existing treatments and diagnoses by Western doctors is helpful.

“There is likely to be a synergistic benefit with TCM and Western medicine if the TCM doctor really knows what he’s doing,” says Western fertility specialist Dr Milton Leong Ka-hong of the Women’s Clinic in Central. “This is because while Western medicine is symptom-directed and simple, TCM is complex. It involves symptoms caused by different qi deficiencies, so diagnosis is not easy. Combination medicine can also exert very different pharmaceutical effects.”