



STORY ARCHIVE

Improving The Odds Of IVF

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Improving The Odds Of IVF

One of the changes sweeping through our society this century is that women are having fewer children, later in life.

That may explain why the use of IVF to assist pregnancy is growing by up to 15% a year in Australia.

But experts say that science and technology has reached a plateau, and improvements in the success of these fertility treatments may only come from entirely different medical traditions – like acupuncture.

Mark Horstman travels to Beijing and Adelaide to find out.

TRANSCRIPT

Liu Fang: I'm worried...if I want to have a baby, I shouldn't wait until I'm too old. I know it's not good for the baby or the woman.

Mina Pickett: Time's ticking by, that's what I'm thinking, I'm getting older. Essentially, is this ever going to happen to me?

Mark Horstman: In a sense, fertility starts running out from the moment of birth. Each baby girl is born with the makings of around about a million eggs, like these ones...but by puberty, there's 400,000 left, which drops to less than 1000 by 40 years of age.

Narration: With odds like that, plus chancy male fertility, it's not surprising that up to 15 percent of couples worldwide need medical help to get pregnant.

And between China and Australia, there's a sharp contrast in the treatments they receive.

In the land of the baby bonus, increasing numbers of women use in vitro fertilisation.

Professor Rob Norman: In Australia from about the late 1990s we have seen at least a doubling if not a tripling of the IVF pregnancy rate.

Narration: While in the land of the one child policy, acupuncture and herbal remedies have treated infertility for more than 2000 years.

Professor Niu Jianzhao: The Western medicine relies on tests, but Chinese doctors look at the person as a whole.

Narration: Now Australian scientists are discovering that acupuncture can support IVF, without knowing exactly why.

Professor Norman: The evidence is very compelling that acupuncture is effective around the time of conception to improve conception rates.

Narration: With the help of this clinic in Beijing, 38 year old Liu Fang hopes to get pregnant again.

Liu Fang: I can't have a baby since I had an abortion two years ago, so I've come to try the Chinese medicine.

Narration: Chinese medicine regards the heart, uterus and kidneys as the key organs that control reproduction.

Dr Zhou: We'll leave those in for 20, 30 minutes...

Narration: With a focus on quality rather than quantity of eggs, Dr Zhou claims a success rate of 30 to 40 percent.

Dr Zhou: What we're aiming to do is strengthen the kidneys so they can help to produce good quality eggs.

Narration: At the nearby University of Chinese Medicine, one of Professor Niu's patients has become pregnant since her last visit.

Professor Niu: Yes, your pulse is vibrant. Can I have a look at your tongue? The tongue looks a bit purple.

Mark: What is your success rate for women achieving pregnancy?

Professor Niu: The success rate, in general, is more than 50%. More than 50%!

Narration: That sounds high, considering the average chance of pregnancy per IVF cycle is 25% under 30 years of age. It drops to less than 10% for women over 40.

Mina Pickett: It's quite upsetting and distressing that these things don't happen as naturally as you would like it.

Narration: In suburban Adelaide, Mina and Dave have been trying to conceive for three years.

Now she's on her fourth cycle of IVF.

By its very nature, IVF is invasive medicine. Hormone injections control ovulation. Eggs are removed and fertilised outside the body. After a few days, the embryo is transferred to the womb. Nearly three percent of babies in Australia are born from IVF.

Professor Norman: We have got so good at what we are doing, that now medically there is not much else that we can do. But there is still a large number of people who are not getting pregnant with IVF, so we have got to look in other areas.

Narration: And one's been there all along. IVF expert Rob Norman teamed up with acupuncturist Caroline Smith for a ground-breaking randomised control trial.

Dr Caroline Smith: We did a study of over 200 women where they received acupuncture and compared that to a control group who received placebo acupuncture.

Mark: You just pretended to give them needles? Well we used what we call the placebo needle which is a fairly new development in terms of doing acupuncture research.

Narration: The placebo needle is applied just next to the right spot, without penetrating the skin.

Mina visits Caroline for three real treatments during her IVF cycle.

Mark: Have you ever had acupuncture before now?

Mina Pickett: No never, hadn't thought about it for any reason.

Acupuncture is just a few little appointments out of the whole month, compared to embryo transfer, scans, blood tests, I mean the amount of blood tests, you just lose count.

Mark: At least here, you get to lie on a couch.

Dr Smith: The research involves doing a treatment before the embryo transfer and a treatment after, and I think it's fairly important to do those treatments as close to the procedure as we can.

Narration: To test if acupuncture affects IVF, Caroline developed a standardised treatment that draws on very different view of the body.

Dr Smith: We see an interconnection of channels, in which a flow of energy and blood circulates around the body.

Narration: All the organs are said to be connected by this invisible network of channels called meridians.

Professor Zhou Yunxian: The meridian system has a close relationship with nervous system, but it is not nerves.

Narration: The aim is to promote the flow of blood in balance with the vital life energy called qi.

Professor Yunxian: Qi and the blood circulate through the meridians, and through the needles, through the points, qi and the blood can be regulated, yin and yang can be regulated to make them balanced.

Narration: The patients can feel when the needles hit just the right points along the meridians.

Professor Yunxian: You have to let the patient know, so they can tell you. You le, in Chinese, meaning you got it. Qi arrives.

Mina Pickett: You get a tingling sensation when the needles are inserted, it's like having the sun hit your face for the first time.

Dr Smith: If someone has a poor response to IVF medication, the treatment would be aiming to support the blood flow around the ovaries to help the follicles develop during an IVF cycle.

Narration: Healthy eggs are one thing, but then there's the complex biochemistry that switches off the mother's immune system so that the embryo can grow.

Professor Norman: When it comes to conception, the areas that we are particularly interested in is what is going on in the lining of the womb, the endometrium, because that's the interface between the embryo and the mother, and that's where most things go wrong in fertility.

Professor Niu Jianzhao: For this kind of patient, our main technique is to help blood circulation.

Narration: And if acupuncture does boost blood circulation, it seems to bring results.

Dr Smith: What our research showed was an encouraging trend, increasing trend in the pregnancy rate.

We do two treatments on the day of the embryo transfer.

Narration: Although a sample of 200 is too small to be statistically significant, it does correlate with similar research elsewhere in the world.

Professor Norman: But if you add them all together, you get this number here, which is twice the pregnancy rate, is that the way to interpret it?

Dr Smith: It is, twice the pregnancy rate.

Professor Norman: Now why this occurs is still fairly uncertain, but acupuncture may improve the blood supply to the womb – it may improve some of the cells that come in to the lining of the womb that talk to the embryo.

Narration: In early 2008, the British Medical Journal also reported that acupuncture with IVF increases the chance of pregnancy by 65 percent.

Mina's chance came when her last treatment tripled the number of eggs.

Mina Pickett: We had 12 embryos and from there we had two embryos implanted, they picked the best two. And from there we ended up with our beautiful little baby boy, baby Liam.

Narration: To his proud parents, Liam is living proof that acupuncture improves the chance of IVF's success.

Mark: What next?

Dave Pickett: You answer that.

Mina Pickett: Well we want to have more children.

Mark: And acupuncture will play a part in that?

Mina Pickett: Yeah, we've been quite fortunate because the last cycle we had little Liam, we actually have got embryos left over. So you know, Liam has got five brothers or sisters just waiting there for us to use them.

Story Contacts

Professor Rob Norman

Doctor Caroline Smith

Prof Niu Jianzhao

Prof Zhou Yunxian

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[British Medical Journal, Feb 2008](#)

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