Academic Seminar on Annual General Meeting of ATCM 2012



Treating Infertility by the Integration of TCM and Assisted Conception Therapy

中医结合西医人工助孕疗法治疗不孕症



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Outline 提纲

- 1. The pathology of infertility 不孕症的病因病理
- 2. Assisted Conception Therapy (ACT) 西医助孕疗法
- 3. Integration of TCM/Acupuncture (ACP) & ACT/IVF 中医结合西医助孕疗法
- 4. IVF protocols & commonly used drugs IVF 治疗方案及常用药物
- 5. TCM/ACP program: Before, During, After IVF & During early pregnancy
 - 中医针灸治疗方案: IVF之前, 期间, 之后及怀孕早期
- 6. Summery 总结
- 7. Case studies 典型病例

Pathology of Infertility 不孕症病因病理

- □ Five major factors: ovarian, fallopian tubal, uterine, cervical and immunological factors.
- Obstacle of ovulation (ovarian function disorder-irregular periods or amenorrhea, high FSH, low AMH or POF) and pelvic endometriosis are often the causes of primary infertility, while fallopian tube obstruction, uterine and cervix problems are often the causes of secondary infertility.
- □五种:卵巢,输卵管,宫颈及子宫病变和自身免疫性因素。
- □原发性以排卵障碍(卵巢功能紊乱-月经失调或闭经,促卵泡成熟素增高,卵巢储备功能下降或卵巢早衰)及盆腔子宫内膜异位症较多见,继发性则以输卵管阻塞,子宫及宫颈因素较常见。

TCM Pathology & Differentiation 中医病因病理及辨证分型

- □ Four main pathological patterns of infertility: 不孕症主要有四种病型:
- Deficiency of spleen qi and kidney yang, accumulation of cold and damp in the uterus 脾肾阳虚,寒湿阻滞
- ➤ Insufficient kidney yin with empty fire, liver qi stagnation with blood deficiency 肾阴不足, 肝郁血虚
- Deficiency of qi and blood with the accumulation of phlegm and damp 气血两虚, 痰湿内阻
- Damp and heat together with blood stasis in the uterus
- > 湿热内蕴, 瘀阻胞宫

Assisted Conception Therapy (ACT) 人工助孕疗法

- ➤ ACT: requires the administration of medication-containing FSH, which controls follicle and egg development.
- >助孕疗法: 需用药物-卵泡刺激素控制卵泡卵子的发育。
- Ovulation Introduction/Hormonal therapy: Clomiphene
- >促排卵治疗/激素疗法:克洛米芬
- ➤ Intra-Uterine Insemination (IUI) 宫腔内人工授精
- In Vitra Fertilization (IVF)-Embryo Transfer (ET)
- >体外授精-胚胎移植术(试管婴儿)
- Intra-Cytoplasmic Sperm Injection (ICSI)
- > 卵胞浆内精子注射
- Frozen Embryo Transfer (FET)
- >冷冻胚胎移植

Integration of TCM/ACP&ACT/IVF 中医结合西医助孕疗法

- TCM treat the cause of infertility, focus on restoring couple's energy balance, aiming for natural conception;
- IVF may be the best option for women with severe mechanical disorders such as long term tubal obstruction, endometriosis, or uterine abnormality; or injury of male reproductive organs etc.
- TCM can improve such conditions, help to prepare both partner's body for ACT, improve ACT success rate.
- 中医治疗不孕症之本,集中在恢复病人气血阴阳之平衡,期望自然怀孕;
- IVF是患有严重器质性病变不孕夫妇的首选疗法,如长期输卵管堵塞,子宫内膜异位症,子宫畸形,或事故伤及生殖器官,或化疗损害生殖功能等。
- 中医可以改善病情,全面调理病人,提高IVF成功受孕率。

Research Reviews on Acupuncture & IVF 针灸结合IVF治疗不孕症的研究概况

- First IVF/Test -Tube baby Louise Brown was born in July 1978.
- First research to study the effect of ACP in improving IVF outcome: was done in 2002 by Paulus in Germany.
- Total 160 patients was recruited for the study, 80 patients was selected randomly to ACP group and 80 for control group.
- Method: ACP was administered on the day of embryo transfer (ET), 25 mins before and after, with auricular ACP.
- 第一个IVF婴儿诞生于1978年7月, 英国。
- 2002年第一个研究针灸提高IVF成功受孕率的是德国的 Paulus等。
- 160例病人,80人随机选入针灸组,另80人选入对照组。
- 方法: 胚胎移植当日针灸治疗两次,移植前25分钟和移植后,配合耳穴。

Research Reviews on Acupuncture & IVF 针灸结合IVF治疗不孕症的研究概况

- Acupoints before ET: Du20, PC6, Sp8, Liv3, St29; after ET: LI4, St36, Sp10, Sp6; auricular points: Zigong, Naodian, Shenmen, Neifenmi, 2 needles were inserted into each side of ear, and then the side of points was changed after ET.
- Result: Pregnancy rate was significantly higher in the ACP group than in the control group (42.5% vs. 26.3%).
- 移植前:百会,内关,地机,太冲,归来;耳穴-左神门, 左内分泌,右子宫,右脑点;移植后-合谷,足三里,血 海,三阴交;耳穴左右交换
- 结果: 针灸组成功受孕率明显高于对照组(42.5%对26.3%)

Research Reviews on Acupuncture & IVF 针灸结合IVF治疗不孕症的研究概况

- over ten more randomized controlled studies (RCS) have been carried out since then.
- 7 studies used similar ACP protocol as Paulus, excepted Dieterle did another session 3 days after ET and auricular APT; Westergaard did one additional session 2 days after ET; and Smith did one more session on day 9 of ovarian stimulation.
- other 5 studies applied ACP on the day of egg retrieval (ER) or egg collection (EC) only.
- 自此之后又有十多个类似随机抽样研究,
- 其中七个与Paulus针灸方案基本相同,唯Dieterle研究中在胚胎移植后三天加一次针灸配耳穴; Westergarrd在移植后两天加一次针灸; Smith在卵巢刺激期第九日加一次针灸。
- 另五个研究仅在取卵目针灸。

Research Reviews of Acupuncture & IVF 针灸结合IVF治疗不孕症的研究概况

- Conclusions: A meta-analysis of over 10 randomized studies revealed that ACP can be considered as an alternative for pain relief during EC in patients who cannot tolerate the conventional conscious sedation because its adverse effects.
- The pregnancy rate for IVF treatment is significantly increased when acupuncture is administered on the day of ET.
- 结论: 十个以上研究结果显示可以考虑在取卵时用针灸止痛, 尤其适用于那些不能忍受镇静麻醉西药副作用的病人;
- 胚胎移植当日使用针灸治疗可以明显提高受孕率。

Summary of randomized studies of the effect of acupuncture on IVF outcomes.

(a) Acupuncture given on the day of oocyte retrieval only

		Pregnancy	regnancy rate Ongoing pregnancy rate		e Liv	Live birth rate		Miscarriage rate		
Studies	Blindness	Acupuncture	Control	Acupunctur	e Contro	Acupur	ncture	Control	Acupuncture	Control
Stener-Victorin et al. (65)	No	37.3% (28/75)	25.3% (19/75)	-	-	33.3 (25	%* 5/75)	17.3%* (13/75)	10.7% (3/28)	31.6% (6/19)
Stener-Victorin et al. (48)	No	31.6% (43/141)	35.5 % (49/145)	26.2% (37/141)	29.7% (43/14	5)	•	_	14.0% (6/43)	12.2% (6/49)
Humaidan and Stener-Victorin (66)	No	46.0% (46/100)	50.0 % (50/100)	-	-	-		-	-	-
Gejervall et al. (24)	No	28.8% (23/80)	32.5% (26/80)	-	-	-		-	-	-
Sator-Katzenschlager et al. (67)	Double blind	46.9%* (30/64)	23.3%* (7/30)	-	-	-	•	-	-	-
(b) Acupuncture given on the day of embryo transfer										
Paulus et al. (70)	No	42.5%* (34	1/80)	26.3%* (21/80)	-	-	-	-	-	-
Paulus et al. (71)	Not mention	ed 43.0% (43	3/100)	37.0% (37/100)	-	-	-	-	-	-
Dieterle et al. (72)	Not mention	ed 33.6%* (39	9/116)			13.8%* 15/109)	-	- 15	5.4% (6/39)	11.8% (2/17)
Smith et al. (73)	Single blinde	d 30.9% (34	4/110)	22.9% (27/118) (28.2% 31/110) (18.6% 22/118)	-	-	-	-
Westergaard et al. (74)	No	35.0%* (70	0/200)	21.0%* (21/100) (29.0% 58/200)	19.0% 19/100)	-	- 25	5.7% (18/70)	23.8% (5/21)
*Statistically significant difference.										

MODERN TRENDS, Edward E. Wallach, M.D.

Associate Editor, The role of acupuncture in the management of Subfertility, Ernest Hung Yu Ng, M.D., Wing Sze So, B.Sc., Jing Gao, B.Sc., Yu Yeuk Wong, M.D. and Pak Chung Ho, M.D.

Research on TCM and IUI

中医结合人工授精治疗不孕症 的研究

- First study to measure the effectiveness of TCM in combination with IUI, conducted by Dr. Shahar Lev-Ari from Tel Aviv University, published in the Journal of Integrative Medicine on 9th January 2012,
- TCM program designed to meet each woman's specific needs: acupuncture weekly and a regime of CH, consisted of herbal powders or raw herbs.
- Average age: study group 39.4, control group 37.1.
- Result: TCM can have a major impact on the success of IUI, 65.5% of test group conceived, compared with 39.4% of the control group.
- 第一个研究中医结合人工授精治疗不孕症的效果,于2012年元月发表于JIM。
- 中医治疗方案根据每个病人情况而定: 针灸每周一次, 配服浓缩粉或草药。
- 妇女平均年龄: 试验组39.4岁,对照组37.1岁。
- 结果: 试验组65.5%怀孕, 对照组39.4%怀孕。证明中医对IUI成功受孕率有很大影响。

- ▶Antagonist regime 拮抗剂/对抗剂方案
- ▶Agonist regime 受体激动剂
- Long protocol 长方案
- Short protocol 短方案
- Ultra long protocol 超长方案

(Refer to the lecture of Prof. TC Li)

- ➤ Antagonist protocol
- Give a better response for women with a low ovarian reserve or POF (high FSH, low AMH).
- Puregon: starts on cycle day 3, ovarian stimulation;
- Cetrotide (Antogon-GnRH antognist) or Orgalutran day 7, suppress pituitary gland to prevent premature ovulation;
- Pregnyl (HCG): 36 hours prior to EC;
- Progesterone: night of EC till pregnancy test or 12 weeks pregnant..

- ➤ Agonist Long protocol:

 Classic & Common IVF protocol 90% of all IVF cycles;
- Down regulation: GnRH agonist (Suprecur) on day 21 (seven days before next period) for 10 days minimum, to suppress pituitary gland, blocks the release of LH to avoid premature ovulation.
- Stimulation: Day 3, Gonadotropin (FSH-Gonal F, Manopur), stimulate ovaries to produce more follicles.
- Pregnyl: 36 hours prior to EC;
- Progesterone: the night of EC till pregnancy test or 12 weeks pregnant.

- ➤ Agonists- Short protocol:
- For poor responders & older women.
- Down regulation: GnRH-Suprecur on day 2 till EC;
- Stimulation: Gonadotropin-Puregon on day 3 till EC;
- Pregnyl: 36 hours prior to EC;
- Progesterone: the night of EC till pregnancy test, or continue till 12 weeks pregnant..

- Ultra long protocol:
- For women with endometriosis.
- Down regulation: GnRH Agonists (either Zoladex or Buserelin) for 3 months;
- Stimulation: then start gonadotropin to stimulate ovaries for about 12 day till EC;
- Pregnyl: 36 hours prior to EC;
- Progesterone: the night of EC till pregnancy test, or continue till 12 weeks pregnant.

TOM Understanding of Fromtonal drugs								
Drugs Function		Side Effects	TCM Characteristics					
Suprefact -Buserelin Zoladex.	Down regulation, Suppress pituitary	Headache, hot flushes, breast tenderness,	Yin deficiency, Qi & blood stagnation					

gland to avoid

premature ovulation.

Follicle stimulation-

stimulate ovaries to

Inducing ovulation

produce more

follicles.

Assisting

implantation

Lupron,

Prostap,

Clomiphene,

Manopur,

Gonal-F,

Puregon,

Merional

Progesterone

Pregnyl

moodiness, irritability,

vaginal dryness,

Fatigue, headache,

nausea, abdominal

bloatness, OHSS,

breast tenderness,

Headache, embolism.

Skin irritation, sore

dizziness, abdominal

pain, constipation,

breasts, fatigue,

insomnia

emotional

Liver qi stagnation,

Spleen qi deficiency

Excessive yang rising

Excessive heat/yang

Liver yang rising,

Accumulation of

dampness

TCM Preparation before IVF/ACT

西医助孕疗法之前的中医准备和调理

- Many different herbal prescriptions and acupoints can be used, but as always, depend on the underlying pattern of imbalance.
- TCM pattern differentiation with cycle therapy treat the causes: irregular menstruation, amenorrhea, anovulation, PCOS, uterine fibroids, endometriosis, LPD etc.
- (Refer to TCM treatment program of each disorder)

- 有很多不同的中药和针灸处 方可以用来协助IVF/IUI,但 一定要根据病因而辨证论治。
- 中医辨证治其本/原发病结合调周疗法: 月经不调,闭经, 无排卵性月经,多囊卵巢综 合征,子宫内膜异位症,子 宫肌瘤,崩漏或月经过多, 痛经,黄体功能不全等。

(参考有关各种不同疾病的具体辨证治疗方案)

TCM Preparation before IVF/ACT

西医助孕疗法之前的中医准备和调理

- Commencing TCM 3 months prior to IVF to restore adequate balance of energies, regulate function of organs, reduce chromosome abnormality, improve quality of eggs and sperms, produce best possible response to IVF drugs, enhance chances of conception.
- Some patients may fell pregnant naturally during preparation time. For others, chances of a successful IVF outcome is significantly increased.

- ■IVF之前三个月开始中医治疗, 有足够时间恢复脏腑气血阴阳 之平衡,以减少染色体异常, 改善卵子和精子质量,从而对 IVF药物有良好反应,提高受 孕几率。
- ■中医调理期间,一些病人有可能会在IVF之前自然怀孕,其他未怀孕者IVF 成功率会明显提高。

TCM Preparation - Cycle Therapy 中医调理-周期疗法

➤ Phase I, Yin phase /Follicular phase: Day 5-12 of cycle.
Kidney yin/essence and blood govern Yin phase.
Nourishing kidney yin, enriching qi and blood to support oestrogen, improve eggs quality, strengthen endometrial lining, and to prepare basic condition for conception.

> 1. 阴精期/卵泡期: 月经周期5-12天。

肾阴和气血主管卵泡期。养肾阴,补气血以保持**雌激素**水平,改善卵子质量,增强子宫内膜厚度,为受孕打基础做准备。

TCM Preparation-Cycle Therapy 中医调理-周期疗法

疏肝活血以促排卵。

➤ Phase II, A process of transformation—Ovulation phase: day 13 to 15.

Liver qi and blood flow control ovulation. Liver qi is triggered to begin the transformation of **yin energy (oestrogen)** into **yang energy (progesterone)**. Nourishing kidney yin and warming kidney yang to support the transformation, soothing liver qi and activating blood to promote ovulation.

▶ 2. 转变期-排卵期:月经周期第13-15天。 肝之气血控制排卵。肝气助阴转阳,将<mark>阴精(雌激素</mark>)转 化为阳气(孕激素)。补肾阴暖肾阳,以协助此转变过程,

TCM Preparation - Cycle Therapy 中医调理-周期疗法

Phase III, Yang phase -Luteal phase: day 16-25.
 Kidney yang and spleen qi dominate Yang phase.
 Strengthen kidney yang and spleen qi, nourish blood to support progesterone & increase chances of successful implantation and conception.

▶3. 阳盛期/黄体期:月经周期第16-25天. 脾肾阳气主管黄体期。健脾补肾养血,以维持孕激素水平,提高孕卵着床和受孕几率。

TCM Preparation - Cycle Therapy

- 中医调理-周期疗法
- Phase IV, The premenstrual phase: day 26-28
 - Liver Qi helps premenstrual transformation, converts yang energy into yin energy. Harmonise liver qi, improve blood circulation, to unblock the channels and regulate period.
- ▶ 4. 经前期: 月经26-28天。肝气协助经前转变过程,将阳气转化为阴气。疏肝理气,活血通络以调经。
- Phase V, The blood phase- Menstrual phase: day 1-4
- Menstruation is a time of rest for all the energies. Regulate qi and blood, nourish yin and move blood stasis, so new and fresh blood can take its place in the uterus.
- ▶ 5. 经行期: 经行1-4天。养阴理气,活血化瘀。

TCM during IVF/ACT

- Individualized treatment according to IVF protocols.
- **Down regulation:** between 2 to 4 weeks prior to ovarian stimulation.
- Regulate qi & blood, strengthen spleen, nourish kidney yin and blood.
- Acupoints: Yingtang, LI6,LI4, Pc6, Sp10, Liv3, Sp6, Ki3, UB18, UB20, UB23.
- Herbs: Danggui, Baishao, Chaihu, Danshen, Fuling, Baizhu, Suanzaoren, Yiejiaoteng, Zheke, Gancaao.

IVF/ACT期间的中医治疗

- 针灸治疗方案要根据病人的 IVF/ACT方案而定,因人而 异。
- ▶**抑制期:** 卵巢刺激开始之前2-4周。
- 理气健脾,补肾阴,养心血。
- 取穴: 印堂, 曲池, 合谷, 内关, 血海, 太冲, 三阴交, 太溪, 肝俞, 脾俞, 肾俞
- · 草药: 当归, 白芍, 柴胡, 丹参, 茯苓, 白术, 酸枣仁, 夜交藤, 枳壳, 甘草

TCM during IVF/ACT

- > Hormonal Stimulation:
- 2 or 3 days after menstrual cycle begins, till EC.
- Nourish kidney yin and blood, soothe liver qi, strengthen spleen qi, remove dampness.
- Acuponts: Du20, Zigong, Ren4, Sp10, Sp9, St36, Sp6, Liv3, Ki3, UB18, UB20, UB23.
- Herbs: Shanyao, Shanzhuyu, Dangshen, Fuling, Baizhu, Nuzhenzi, Hanliancao, Gouqizi, Tusizi, Danggui, Baishao, Chaihu, Bajitian.

• IVF/ACT期间的中医治疗

- > 激素刺激期:
- 经行第二或第三天直至人工取卵。
- 补肾养血, 疏肝健脾祛湿。
- 取穴: 百会, 关元, 子宫, 血海, 阴陵泉, 足三里, 三 阴交, 太冲, 太溪, 肝俞, 脾 俞, 肾俞。
- · 草药: 山药, 山茱萸, 白术, 茯苓, 女贞子, 旱莲草, 枸杞子, 菟丝子, 当归, 白芍, 柴胡, 巴戟天。

TCM between EC and ET

- Regulate liver Qi & Blood, Nourish heart blood, calm spirit & uterus.
- Acupoints: Sishencong,
 Yintang, Pc6, LI4, St25, St29,
 Sp10, St36, Sp6, Liv3.
- Auricular points: Shenmen,
 Liver, Spleen, Kidney.
- Herbs: Danshen, Baishao,
 Fuling, Baizhu, Xiangfu,
 Chaihu, Zhike, Gangcao.

取卵后胚胎移植前之中医治疗

- 调理气血,养心安神,使病人精神放松,子宫肌肉放松,加速子宫内血液循环,改善子宫内膜厚度,助孕卵着床。
- 取穴:四神聪,印堂,内关, 合谷,天枢,归来,血海, 足三里,三阴交,太冲。
- 耳穴: 神门, 肝, 脾, 肾
- 中药: 丹参, 白芍, 茯苓, 白术, 香附, 柴胡, 枳壳, 炙甘草。

TCM on the day of IVF/ET

- Nourish heart blood to calm spirit, strengthen spleen qi to hold embryos in the uterus.
- ACP only: two sessions-30 minutes before & straight after ET.
- Before: Du20, Yintang, St29, Ren3, Pc6, Sp8, Liv3; plus left ear points: Shenmen, Endocrine; right ear points: Uterus &Naodian;
- After ET: Yintang, LI4, Sp10, St36, Sp6; plus swapped ear points.

胚胎移植当日针灸方案

- 养心安神,健脾益气,助受孕。
- 针灸两次: 移植前30分钟一次, 移植后一次。
- 移植前: 百会, 印堂, 归来, 中级, 内关, 地机, 太冲; 加左耳穴: 神门, 内分泌, 右耳穴子宫, 脑点。
- 移植后: 印堂, 合谷, 血海, 足三里, 三阴交, 加耳穴左 右交换。
- 无需中药。

After ET & during early pregnancy

- Strengthen kidney & spleen, nourish qi &blood, calm uterus & support implantation.
- ACP: two sessions within 7
 days after ET: Du20, Yingtang,
 Pc6, Ht7, St36, Liv3.
- Once weekly till 12 weeks pregnant with similar acupoints as above, modified accordingly;
- Herbs: Tusizi, Sangjisheng,
 Xuduan, Duzhong, Shanzhuyu,
 Baizhu,

胚胎移植后及怀孕早期

- 健脾肾,养气血,改善子宫内血液循环,助孕卵着床,滋养胎儿生长发育,放松子宫,预防子宫收缩,避免流产。
- 胚胎移植后一周内针灸两次: 百会,印堂,内关,神门, 足三里,太冲。
- 若怀孕成功,应每周一次直至怀孕12周,穴位据孕妇个人情况而定,大致同上方;
- 中药: 菟丝子, 桑寄生, 续断, 杜仲, 山茱萸, 白术等。

Summery: How does TCM improve ACT outcome 总结:中医如何提高助孕疗法成功受孕率?

- Support patients physically and mentally up to and after IVF procedure;
- · 帮助病人在IVF治疗前后调节身体及精神平衡;
- Alleviate the tension during this stressful process;
- 缓解IVF治疗期间的紧张情绪,减轻压力;
- Reduce side effects caused by IVF drugs, improve response to hormonal stimulation;
- 减少IVF 药物副作用,改善身体对IVF所用激素类药物的反应;

Summery: How does TCM improve ACT outcome 总结:中医如何提高助孕疗法成功受孕率?

- Increase blood supply to uterus and ovaries, strengthen endometrial lining, and improve egg quality;
- 改善子宫与卵巢内血液供应,加强子宫内膜厚度,提高卵子质量;
- Balance hormone levels and create a more receptive environment in the womb for conception;
- 平衡激素水平, 创造一个良好的有助于受孕的子宫内环境;
- Calm the uterus to prepare for implantation 安宫助孕卵着床;
- Maintain a pregnancy if successful, minimizing the risk of miscarriage.
- 助孕安胎,降低流产危险性。

➤ Medical history:

- Emily and John, aged 40, originally diagnosed with malefactor infertility – poor sperm motility and morphology.
- Had been trying to conceive for 8 years, had nine IVF attempts, including one cancelled cycle. Achieved two pregnancies, both miscarried at 8 weeks.
- Referred to me while undergoing 10th IVF cycle.

▶病史:

- 40岁的Emily和John最初诊为男性不育症,John患弱精症。
- 夫妇试孕8年, 曾做九次IVF, 其中两次成功怀孕, 但 均在8周时流产。
- 在做第十次IVF时经医生推荐来我诊所就诊。

> Treatment process:

- Acupuncture was given to Emily once or twice weekly, patent herbs for both partners.
- After six sessions of acupuncture, 7 eggs were retrieved, with ICSI, 6 fertilised and divided, achieved five viable embryos.
- 3 grade one embryos transferred back to uterus on 3 days after EC, freezed other 3 embryos.

▶ 治疗过程:

- Emily 每周针灸一次或两次, 夫妇两个同时配服中成药。
- 连续针灸六次以后,取卵七个,六个成为受精卵,其中五个受精卵质量良好。
- 取卵后三日子宫内移植胚胎两个,同时另三个胚胎做冷冻。

Treatment process:

- One acupuncture 30 minutes before ET and one straight after ET; two more sessions within a week to help with embryo implantation.
- Two weeks after EC, pregnancy test was positive.
- Bleeding at 7 weeks, Chinese herbal tea replaced herbal pills, with altered acupuncture points. Bleeding stopped in two weeks, was fine for rest of the pregnancy, carried baby girl to full term.

>治疗过程:

- ■胚胎移植当日针灸两次,30分钟之前一次,移植后一次;移植后一周内针灸两次以助孕卵着床。
- ■取卵后2周,妊娠化验阳性。
- ■孕七周时出血,改用草药并调整针灸穴位。两周后出血止, 之后一切正常,足月产一健康女婴。

☐ Analysis:

Both partners need be treated to enhance Emily's chances of conceiving.

John: busy and stressed, felt hot. Liver qi and blood stagnation, kidney yin deficiency. Nourish kidney yin, harmonise liver qi

and blood, to improve sperm quality.

• Emily: has one ovary only, had already gone through nine IVF. Constantly taking strong hormonal stimulation drugs over the years. Her body was never able to fully recover, organs were not functioning optimally, lead to depletion of kidney qi and jing, stagnation of qi and blood, poor blood supply to ovary and uterus, and imbalanced hormone levels.

• TCM well prepared her body, rebalanced hormones, improved uterine and ovarian blood flow, enhanced endometrial lining, harmonised pelvic environment, produced best response to IVF drugs, achieved a pregnancy and carried to term.

Thank You!

