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【잱쒯】 뛄鶈 뻺뻛鼾뫟럤뺲쓋좷(FET)갂鱷죕，鱖黨쌃냙꾿뛗뎯곔鯞껖닛죓돋靹싮짘侔뛟뚩鶈돞鵗돋슬。 黨鵱 뼎몦 2016 뛯 1～8 웆웟죕ᄚ뫐뗶꿧點냉鷗 202 쓂욿죿읡죓돋，껍뿾쓷짘侔뛟뚩靹몦숀죡룟귷쓋좷곸삹鰭轎뫐믴麃웘쳉싕 FET 鶈靹싮짘侔뛟뚩귁쟤 130 댂삯쎝냄麂쇸，뷫귿黨삯 4 짮。A 짮：鯠齡역쒮샴竇용；B 짮：齡역鯞껖닛 3 mg 뇟萴，bid，쥒쓋좷뫛；C 짮：齡역鱖黨쌃냙꾿뛗 3 뎨뇟萴，tid，쥒쓋좷뫛；D 짮：뎯곔얫었鯞껖닛곒鱖黨쌃냙꾿뛗，었鵱뽁믔。뗄죡뷫黝짘侔뛟뚩곶鹿꺵꺩뷝붲룂，쓋좷곸 1 齠웆뷫黝뫖믴맲뇻，鯀꿽싕麂魍黨샻。鯀麂죓돋릵곸짘侔뛟뚩곶鹿鶈魒궴맲뇻膠귁쟤뛯돩(≥35 뷯、<35 뷯)꺵鯠웕뛯쉯(>2 뛯、≤2 뛯)꿽싕黨鮿黨샻。 꿨가 膠뛯돩黨鮿黨샻쇙볃，샘든<35 뷯궾볌≥35 뷯，귁쟤짘侔뛟뚩곶鹿냾鱱웻께맼볋，D 짮웻鱔짲삯쇙죽，짮껩魍꿔옍쇙죽싙鯫쓱(P<0.05)。4 짮죕鯠웕뛯쉯≤2 뛯귁쟤鶈짘侔뛟뚩웻鱔곶鹿냾쇙죽鵑엟鯠웕뛯쉯>2 뛯쟤(P<0.05)。D 짮鶈돞鵗뫖믴듏쇙죽齗엟 A 짮(P=0.010)；낲麂웋 Logistic 귝ᄚ黨샻黎쇚，<35 뷯귁쟤鶈뛯돩꺵쓋좷럤뺲볾麂靹싮짘侔뛟뚩귁쟤鶈뫖믴듏옍꿔곈鶈용鰍짼었；D 짮쓋좷릵 E_2 뷫뢼곒쓋좷럤뺲볾麂뫖믴듏옍꿔곈鶈용鰍짼었。 꿨든 FET 뛟뚩직魁갂鱷죕鱖黨쌃냙꾿뛗연鯞껖닛뎯었뇎옍슬鴾꿽짘侔뛟뚩웻곶，齋뮮뛟뚩뫢볡쉳，뻦齗뫖믴듏。

【氤꼁鴿】 鱖黨쌃냙꾿뛗； 鯞껖닛； 靹싮짘侔뛟뚩； 鶄뫟럤뺲쓋좷

Efficacy of Xuanju capsule with progynova in treatment of thin endometrium

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【Abstract】

Objective：To explore the efficacy of Xuanju capsule combined with progynova in patients with thin endometrium in frozen embryo transfer (FET) cycle.

Methods：A total of 130 patients who were cancelled the transplantation due to thin endometrium or failed to be pregnant after transfer and undergoing to another FET were recruited from Chinese PLA 202 hospital Between Jan. and Aug. 2016. They were randomly divided into four groups by random number table. The patients were not given any drug in group A；the patients were given progynova orally (3 mg bid) until the day of embryo transfer in group B；the patients were given Xuanju capsule orally (3 pills tid) until the same day in group C；and the patients were given both progynova and Xuanju capsule (ditto) in group D. Endometrial thickness and hormone levels of patients were detected every week after treatment and gestation status were evaluated at 1 month after embryo transfer. The changes in endometrial thickness before and after treatment were stratified by age (≥35 years，<35 years) and infertility years (>2 years，≤2 years).

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Results: According to age stratification analysis, regardless of＜35 years or≥35 years, the endometrial thickness of all the patients showed an increasing trend. The most significant change of endometrial thickness was found in group D, and the difference was significant between the groups (P＜0.05). The endometrial thickness increased in the patients with infertile duration≤2 years was significantly higher than that in the patients with infertile duration＞2 years (P＜0.05) in the four groups. The clinical pregnancy rate of group D was significantly higher than that of group A (P=0.010). Binary logistic regression analysis found that age of＜35 years and the number of transplanted embryos had a better predictive effect on the pregnancy rate in patients with thin endometrium. The E_2 level and the number of transplanted embryos had a better predictive effect on pregnancy rate in group D.

Conclusions: In the endometrial preparation process of FET cycle, Xuanju capsule combined with progynova can improve the endometrial thickness and endometrial receptivity, and increase the pregnancy rate.

Key words: Xuanju capsule;　Progynova;　Thin endometrium;　Frozen embryo transfer

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髏싮짘侔뛟뚩(TEs)볆좽짘侔뛟뚩鶒곶鹿鶗엟뛡鍔鰼鶇봜믴鶒돞꿬뛟뚩곶鹿,룩鯑鮢볆뚸쓀뻝뼗鶒꺷鮭뗈鱮,麎볆鬧죿믿좸껁볹(ART)黎잾갂鱷죕엎鱠믾黎쇚鶒쓀닥뻝뼗억쇶쎬魕쇚,뇎鱖죇鬧죿믿좸죓돋鶒벬靚(FET)鶒髏싮짘侔뛟뚩귁쟤 130 댂삯쎝냄鹿쇸。뛏뫰魔직:뛯돩 21～45 뷯;껍뿾쓷짘侔뛟뚩곶鹿＜7 mm麎몦숀죡룟귷봜믴벬靚。럊鮖魔직:뛯돩＜21 뷯귷＞45 뷯;侔맀싓뺱쓱鱠삹낲죓돋쟤;魆죡룟직魁볙웕쟤;뛕싙낰쒿騖덳쎬꺵싓뺱쎬쓱鱠귷랳싙볩듖庸鯠쀹;鵋뫮뷝(PRL)귷쪿쀻(T)뗄쇙밂齘。魆쎝냄귶죕ᵔᵔ봜뗶꿧點냉鷗 202 쓂욿드닲살욶귦럿직,뷾엕쎝냄鹿쇸냾릮복좯맮뾱쓧볮。

髎뷫귿봂짛魕鶒꾰쎝냄鹿쇸黨삯 4 짮,엟 FET 릵黨魑齡역鯠뾱黨髏鶒뛟뚩직魁。A 짮(34 댂):鯠齡역뫓곓쒮샴齏용。B 짮(41 댂):鵋몦숀죡룟귷몼뫔봜믴벬靚곸鶒鷗 1 鵁늹웆낲鶒鷗 3～5 뻱놯볁,뎱싽뇟蒂鯞껖닛죆럤뺲쓋좷뫚。C 짮(28 댂):鵋몦숀죡룟귷몼뫔봜믴벬靚곸鶒鷗 1 鵁늹웆낲鶒鷗 3～5 뻱놯볁,뎱싽뇟蒂驤黨쌃냙꾿뛦죆럤뺲쓋좷뫚。D 짮(27 댂):뾱벶뇟蒂鯞껖닛꺵驤黨쌃냙꾿뛦(었鶸뾱믔)。

麎、쎝냄黨鶸

1. 뛟뚩직魁:A 짮:鯠齡역뫓곓쒮샴齏용。B 짮:鵋몦숀죡룟귷몼뫔봜믴벬靚곸鶒鷗 1 鵁늹웆낲鶒鷗 3～5 뻱놯볁,뎱싽뇟蒂鯞껖닛(샱뷦鴽麎鴾뢱,靚麛,鶺ᵔᵔ)3 mg,bid,죆럤뺲쓋좷뫚。C 짮:鵋몦숀죡룟귷몼뫔봜믴벬靚곸鶒鷗 1 鵁늹웆낲鶒鷗 3～5 뻱놯볁,뎱싽뇟蒂驤黨쌃냙꾿뛦(쟨꾲벮릮죋쒮)3 뎨,tid,죆럤뺲쓋좷뫚。D 짮:뎯곔얫었鯞껖닛꺵驤黨쌃냙꾿뛦(었鶸꺵었도뾱믔)。쓋좷뫚직侔뛟뚩

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곶鹿뫙슦엟 7 mm 재，몦숀죡룟。

2. FET：댡鸛席 30℃ 붲욢覦鷖 1 min，럤뺪뾺뫰鱋겱엕 0.5 mmol/L 쟦뻌꺵 20 mg/ml 쎯맪鷂髙鶈鱺뷙쒿죕 10 min，쓋뫰겱엕 0.2 mmol/L 쟦뻌꺵 20 mg/ml 쎯맪鷂髙鶈鱺뷙쒿죕 10 min，귢鴣쒿솹鷖 8 娫，뗄娫 1 min，鱺뷙鰼鶇鶈럤뺪쓋죆럤뺪럥쏽쒿죕럥쏽騖었。놯볁뛟뚍직魁곸，뗄죡엎믿쵐뇋鱠믾쓂벫즭뫐싕쓺鷓鱠믾鰋도짘侔뛟뚍곶鹿（벾었샼뗊짘祓뛟 ACUSON X300PE 鱠믾쓌），껱鰋쎯맪꺩뷝붲륎，鷂 LH 鵔顓좺맗짘侔뛟뚍곶鹿≥7 mm，鷂뫚께었귋뻪뾯쥓믩쒿（잰꾲쇎儼）20 mg，im，qd，꿽싕뛟뚍즯궴곸싕럤뺪쓋좷。귁쟤쓋좷럤뺪삯 6～8 솽髦룟럤뺪귷뛗럤룟럤뺪，럤뺪죏도볜쎦 A 꺻럤뺪；鯢黨귁쟤꿻벨 1～2 떻럤뺪，聡쓋좷 B 꺻럤뺪。볜쎦쓋좷 1～2 떻엊죏럤뺪，鯢黨귁쟤볡럤뺪죏도쉯죋쓋좷 3 떻럤뺪。뗖숀쓋좷죡룟魔직：쓋좷뫚짘侔뛟뚍곶鹿뫙＜7 mm。

3. 鈅鰭좽魔：齠짮냾웟죓돋릵鰋도짘侔뛟뚍곶鹿꺵쎯맪鴿鴗鴛（E_2）、웕뾯（P）、듖럢鵀꺩뷝（FSH）、귋뻪믿鰼뷝（LH）、뗟뫮뷝（PRL）꺵신꺩뷝（T）붲룂，뗄죡鑲鰋뛟뚍곶鹿꺵쎯맪 E_2、P、LH 붲룂，께었귋뻪뾯릵웞鵊鰋도뛟뚍곶鹿鯑껱鰋 E_2、P、LH，뀞가샣뗄쇙쓱鱠쟤，께었귋뻪뾯꿽싕뛟뚍즯궴곸싕 FET；뫹 FET 곸鷗 7 뻱좩벺삯믿궴뫖믴재（HCG＞10 000 U/L），鷗 30 뻱싕쓺鷓鱠믾껱鰬뫘묎뫔볌黵돞鵋뫖믴。鈅鰭鯑黨샻齠짮짘侔뛟뚍곶鹿鶈웻께맮뇻，죓돋릵곸 E_2、P、LH 붲룂鶈鼷궴꺵뫖믴뫪뇻，鯑鹿죓돋릵곸짘侔뛟뚍곶鹿鶈鼷궴맮뇻髎귁쟤뛯돩（≥35 뷯、＜35 뷯）꺵鯠웕뛯쉯（＞2 뛯、≤2 뛯）꿽싕黨鮿黨샻。

묂、뾸껋쎬鴦닯

鯧었 SPSS 22.0 뫲꼃꿽싕뾸껋黨샻。껋도짏돔쇍싕 K-S 젂뺱싙껱쑺，뫀곸껱쑺黛鯫룰싙。쁴鵛젂뺱黨鯡鶈짏돔쓙녮봂±魔직鯫（$\bar{x}\pm s$）싓볂뗭볻，鯠쁴鵛젂뺱黨鯡鶈짏돔쓙죕삸봂（쇇뷉黨삸봂～믔뷉黨삸봂）[M（Q_L～Q_U）]싓볂뗭볻。쁴鵛젂뺱黨鯡맗黛鯫룰，꿽싕黛鯫黨샻；쁴鵛젂뺱黨鯡맗黛鯫鯠룰，뙗짲鵑黛鯫/짲슦黛鯫＜3，싕黛鯫黨샻；짲鵑黛鯫/짲슦黛鯫＞3，싕麋쏾헸 Kruskal-Wallis 죍곒껱쑺。鯠쁴鵛젂뺱黨鯡，싕麋쏾헸 K-W 죍곒껱쑺。뫬짮껩鯫魑엕뾸껋쎬쓧쑺，꿽쓀鯡쁻갂黛鯫黨샻귷 K-W 죍곒껱쑺꿽싕뎾뎾퇫꿔。껋봂짏돔짮껩퇫꿔鯧었 χ^2 껱쑺，뫹짮껩鯫魑엕뾸껋쎬쓧쑺，꿽쓀鯡었 Bonferroin 龝꿽싕뎾뎾퇫꿔。4 짮껩퇫꿔쓙붰鮡 P≤0.05 삸鯫魑엕뾸껋쎬쓧쑺，χ^2 껱쑺꺵 K-W 죍곒껱쑺鵛뎾뎾퇫꿔쓙 P≤0.05/4＝0.0125 삸鯫魑엕뾸껋쎬쓧쑺。귝㎮黨샻鯧었麃黨닥 Logistic 귝㎮黨샻。

꿠　가

쓀、쓀髡짏돔꺵죓돋릵맮뇻퇫꿔

A、B、C、D 4 짮귁쟤륎냾뛯돩、鯠웕뛯쉯、죓돋릵 FSH、PRL、T 붲룂꺵죓돋벶껩퇫꿔냾생쇙죽싙鯫쓱（P＞0.05），냤엕뇎퇫싙（鱳 1）。

鱳 1　齠짮귁쟤죓돋릵쓀髡맮뇻퇫꿔［（$\bar{x}\pm s$），M（Q_L～Q_U）］

짮魑	댂봂	륎냾뛯돩（뷯）	鯠웕뛯쉯[a]（뛯）	FSH（U/L）	PRL（U/L）	T（nmol/L）	죓돋벶껩[a]（d）
A 짮	34	33.07±3.58	3（2～4）	6.05±2.63	276.83±93.40	0.01±0.01	12（9～15）
B 짮	41	33.13±3.94	3（2～5）	5.62±1.79	315.57±138.38	0.01±0.01	12（11～13）
C 짮	28	32.93±2.96	4（3～5）	5.84±1.93	314.50±142.18	0.01±0.00	11（9～13）
D 짮	27	32.64±3.43	4（3～5）	6.37±1.86	321.96±134.55	0.01±0.00	13（11～14）

쉯：[a]鯠쁴鵛젂뺱黛鯡，쓙죕삸봂（M）、쇇뷉黨삸봂（Q_L）꺵믔뷉黨삸봂（Q_U）뗭볻

鼷、죓돋릵곸짘侔뛟뚍곶鹿、쎯맪 E_2、P、LH 붲룂魑궴퇫꿔

髎뛯돩黨鮿黨샻쇙볃，쌯든＜35 뷯궢볌≥35 뷯，귁쟤짘侔뛟뚍곶鹿냾鱱웻께맼볋，D 짮웻鱒짲삸쇙죽，짮껩퇫꿔엕쇙죽싙鯫쓱（P＜0.05）（鱳 2）；4 짮죕＜35 뷯귁쟤짘侔뛟뚍웻鱒곶鹿냾鵑엟뛯돩≥35 뷯귁쟤，뙗쌯쇙죽싙鯫쓱（P＞0.05）。鯠웕뛯쉯黨鮿黨샻쇙볃，쌯든鯠웕뛯쉯≤2 뛯궢볌＞2 뛯，귁쟤짘侔뛟뚍곶鹿냾鱱웻께맼볋；4 짮죕鯠웕뛯쉯≤2 뛯귁쟤鵛짘侔뛟뚍웻鱒곶鹿냾鵑엟鯠웕뛯쉯＞2 뛯쟤，엕쇙죽싙鯫쓱（P＜0.05）（鱳 3）。쎯맪 E_2 밂齘붲룂짮껩鯫쓱鵑웟쇙죽鯫쓱（P＜0.01）。齠짮쎯맪

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P 뤋궴맼볋鯠뾱，A 짮밂齘，B 짮、C 짮곒 D 짮꾹鷑，鯠냤엕뇎퇹싙；D 짮 P 꾹鷑붲룂엕鵖엟 B 짮곒 C 짮鶈맼볋，鷁 3 짮껩퇹꿔샣쇙죽싙鰰쓱（$P>0.05$）。쎯맪 LH 냾밂齘，鷁짮껩퇹꿔샣쇙죽싙鰰쓱（$P>0.05$）（뻃 3）。

묂、齁짮돞鵗뫖믴맮뇻퇹꿔

A 짮죕엕 4 댂귁쟤멮숀족룟，B 짮죕엕 2 댂귁쟤멮숀족룟，C 짮곒 D 짮黨魑엕 3 댂곒 1 댂멮숀족룟。뾸껋꿽뫰족룟鶶귁쟤럤뺪쓋좷맮뇻，퇹꿔齁짮鶶돞鵗뫖믴듏黎쇚，齁짮鶶돞鵗뫖믴듏鵑웟鰰魑，꿽쓀鯡뎊뎊퇹꿔，D 짮쇙죽齘엟 A 짮（$P=0.010$）；룩뷻齁짮껩퇹꿔샣쇙죽싙鰰쓱（$P>0.0125$）（뻃 4）。齁짮죕＜35 뷯귁쟤鶶돞鵗뫖믴듏냾엕齘엟뛯돩≥35 뷯귁쟤鶶맼볋，鷁냾샣쇙죽싙鰰쓱（$P>0.05$）（뻃 5）。

뻃 2　짘侔뛟똝곶鹿꺵鴽꺩뵑벾었뻱봂[($\bar{x}\pm s$)，M($Q_L\sim Q_U$)]

짮魑	댂봂	죓돋릵뛟똝곶鹿(cm)	귋뻪뾯쥛궴벷뛟똝곶鹿(cm)	뛟똝웻鱔곶鹿(cm)	죓돋/껥鰋벷껩[a](d)	鴽꺩뵑벾었벷껩[a](d)
A 짮	34	0.50±0.18	0.72±0.14	0.21±0.16	12(9～15)	-
B 짮	41	0.55±0.21	0.91±0.16	0.36±0.18	12(11～13)	12(11～13)
C 짮	28	0.54±0.24	0.88±0.20	0.34±0.21	11(9～13)	-
D 짮	27	0.52±0.19	0.93±0.21	0.44±0.18*	13(11～14)	13(11～14)

쥓：연룩븀齁짮짮껩퇹꿔，*$P<0.05$；[a] 鯠蒂鵋젂뺱黨鯡，쓙죕샀봂（M）、믔뷉黨샀봂（Q_U）꺵쇇뷉黨샀봂（Q_L）뗭볻

뻃 3　짘侔뛟똝곶鹿꺵쎯맪 E_2、P、LH 붲룂魑궴퇹꿔［($\bar{x}\pm s$)，M($Q_L\sim Q_U$)］

짮魑	댂봂	짘侔뛟똝웻께곶鹿(cm)		짘侔뛟똝웻께곶鹿(cm)	
		＜35 뷯	≥35 뷯	≤2 뛯	＞2 뛯
A 짮	34	0.22±0.08	0.18±0.05	0.21±0.11*	0.15±0.05
B 짮	41	0.40±0.16	0.30±0.19	0.39±0.15*	0.30±0.19
C 짮	28	0.38±0.10	0.33±0.09	0.42±0.18*	0.34±0.09
D 짮	27	0.46±0.19	0.40±0.18	0.45±0.20*	0.28±0.10

짮魑	댂봂	쎯맪 E_2魑궴붲룂(pmol/L)**	쎯맪 P 魑궴붲룂[a](nmol/L)	쎯맪 LH 魑궴붲룂[a](U/L)
A 짮	34	221.14(115.29～688.15)	0.73(－0.22～2.63)	7.88(5.40～14.55)
B 짮	41	675.21(461.12～933.19)	－0.32(－0.75～0.16)	6.27(1.19～9.31)
C 짮	28	296.52(239.47～445.71)	－0.32(－0.70～0.38)	6.31(2.10～10.01)
D 짮	27	865.46(319.23～941.58)	－0.57(－0.79～－0.10)	6.35(0.12～11.64)

쥓：연뽁짮鯠웕뛯쇣＞2 뛯재퇹꿔，*$P<0.05$；짮껩퇹꿔，**$P<0.01$；[a] 鯠蒂鵋젂뺱黨鯡귱黛鰰鯠룰，쓙죕샀봂（M）、믔뷉黨샀봂（Q_U）꺵쇇뷉黨샀봂（Q_L）뗭볻

뻃 4　齁짮돞鵗뫖믴꿨냛퇹꿔

짮魑	댂봂	멮숀족룟봂	꿽뫰족룟댂봂	엊죏럤뺪봂(떻)	뫖믴鱈鶇럤뺪봂[a](떻)	뫖믴벬顓럤뺪봂[b](떻)	돞鵗뫖믴듏(%)
A 짮	34	4	30	45	30	26	53.57
B 짮	41	2	39	65	57	29	66.27
C 짮	28	3	25	40	32	25	56.14
D 짮	27	1	26	44	43	11	79.63*

쥓：돞鵗뫖믴듏＝a/(a＋b)；연 A 짮퇹꿔，*$P<0.0125$

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魕 5 齠짮髂뛯돩黨鮿곸돞鵗뫖믴꿦낣魋꿔

짮魖	댂봂	뫖믴鰼轎럤뺪봂[a](떻)		뫖믴벬顓럤뺪봂[b](떻)		돞鵗뫖믴듏(%)	
		<35 뷯	≥35 뷯	<35 뷯	≥35 뷯	<35 뷯	≥35 뷯
A 짮	30	22	8	18	8	55.0	50.0
B 짮	39	34	23	14	15	70.8	60.5
C 짮	25	21	11	15	10	58.3	52.4
D 짮	26	32	11	8	3	80.0	78.6

쥕:돞鵗뫖믴듏=a/(a+b)

뷉、麑욯 Logistic 귴럕黨샻

꾰뇎뛡억쇱럤뺪짊鵗鶲쓷뷝뛎뫰麑욯 Logistic 귴럕黨샻。룩죕뛯돩≥35 뷯、A 짮、B 짮、C 짮麑 Logistic 귴럕黨샻뚨싮솺봂낲χ^2껱쑺,P 녮>0.05,聃귴럕뚨싮샣뾸껋쎬쓧쓪。뛯돩<35 뷯꺵 D 짮귁쟤麑욯 Logistic 귴럕黨샻꿦가꼀魕 6 곒魕 7。

<35 뷯귁쟤麑욯 Logistic 귴럕黨샻쇙볃:뚨싮솺봂짠곔껱쑺χ^2=20.50(P=0.009),귴럕뚨싮냤엕뾸껋쎬쓧쓪。麂럤뺪볌黵짊鵗꿽싕黨닥럕魖,齋귴럕뚨싮麂뫖믴듏鶲럕麀젂몼듏삯 75.47%。<35 뷯귁쟤鶲뛯돩꺵쓋좷럤뺪봂麂릢싮짘侔뛟뚩귁쟤鶲뫖믴듏엕꿔곈鶲용鰔짼었。꾰뛯돩<35 뷯귁쟤鶲뛯돩곒쓋좷럤뺪봂鶲뫰귴럕黛鱷,黎쇗<35 뷯귁쟤鶲뛯돩웂슦、쓋좷릵뛟뚩곶鹿웂곶(0.7~1.2 cm),쓋좷엊죏럤뺪봂뛄믞鶲귁쟤뫖믴듏齡齘,뇎鶲귴럕黛鱷삯:Logit(P)=11.07-2.28×뛯돩-1.43×쓋좷엊죏럤뺪봂+5.95×쓋좷릵뛟뚩곶鹿,룩죕 P 좽뫖믴듏(魕 6)。

D 짮귁쟤麑욯 Logistic 귴럕黨샻쇙볃:뚨싮솺봂짠곔껱쑺χ^2=20.15(P=0.01),귴럕뚨싮냤엕뾸껋쎬쓧쓪。麂럤뺪볌黵짊鵗꿽싕黨닥럕魖,齋귴럕뚨싮麂뫖믴듏鶲럕麀젂몼듏삯 84.90%。D 짮쓋좷릵 E_2붲뢾곒쓋좷럤뺪봂麂릢싮짘侔뛟뚩귁쟤鶲뫖믴듏엕꿔곈鶲용鰔짼었。꾰 D 짮귁쟤鶲쓋좷릵 E_2붲뢾곒쓋좷럤뺪봂鶲뫰귴黛鱷黎쇗,D 짮귁쟤쓋좷릵 E_2붲뢾웂齘、쓋좷엊죏럤뺪봂뛄믞鶲귁쟤뫖믴듏齡齘,뇎鶲귴럕黛鱷삯:Logit(P)=37.29+16.03×쓋좷릵 E_2붲뢾-6.42×쓋좷엊죏럤뺪봂,룩죕 P 좽뫖믴듏(魕 7)。

魕 6 <35 뷯귁쟤럤뺪짊鵗억쇱쓷뷝麑욯 Logistic 귴럕黨샻

좽魔	B 좺[a]	$S.E$[b]	wald 좺	P 좺	OR 좺	95%CI
鱨도	11.07	5.05	4.82	0.03	0.36	-
뛯돩(뷯)	-2.28	0.14	3.92	0.05*	0.32	0.02-0.14
鯠웕뛯쉯(뛯)	0.16	0.15	1.12	0.29	1.17	0.87-1.51
죓돋벶껩(d)	-0.03	0.06	0.29	0.59	0.97	0.87-1.09
쓋좷릵뛟뚩곶鹿(cm)	5.95	1.57	4.36	0.05*	2.57	1.32-55.88
쓋좷릵 E_2붲뢾(pmol/L)	0.00	0.00	3.09	0.08	1.00	0.64-1.03
쓋좷릵 P 붲뢾(nmol/L)	0.13	0.12	0.45	0.50	1.14	0.77-1.69
쓋좷릵 LH 붲뢾(U/L)	0.07	0.05	2.42	0.12	1.08	0.98-1.17
쓋좷엊죏럤뺪봂(떻)	-1.43	0.50	8.09	0.00*	0.24	0.09-0.64

쥕:[a]뢰귴럕솺봂;[b]뢰귴럕솺봂魔직샻;*P≤0.05

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뼯 7　D 짮귁쟤럤뺪짊鵗억쇱쓷뷝麑용 Logistic 귴ᄲ黨샻

좽魔	*B* 좼	*S.E*	wald 좼	*P* 좼	*OR* 좼	95%*CI*
鱠도	37.29	22.02	2.87	0.09	1.57	-
뛯돩(뷯)	−0.86	0.60	2.08	0.15	0.42	0.13-0.96
鯠웕뛯쉯(뛯)	−0.54	0.46	1.35	0.25	0.58	0.24-1.45
죓돋벶껩(d)	0.04	0.35	0.01	0.91	1.04	0.52-2.08
쓋좷릵뛟뚩곶鹿(cm)	3.66	5.16	0.50	0.48	38.89	1.43-95.09
쓋좷릵 E_2 붳룂(pmol/L)	16.03	2.11	3.67	0.04*	1.72	1.50-3.69
쓋좷릵 P 붳룂(nmol/L)	0.67	0.44	2.26	0.13	1.95	0.82-4.65
쓋좷릵 LH 붳룂(U/L)	0.46	0.36	1.63	0.20	1.58	0.78-3.18
쓋좷엊죏럤뺪볾(떻)	−6.42	3.56	3.26	0.02*	0.00	0.00-0.73

쥓：*$P<0.05$

뻛　　든

麍쇳쎝냄魕뗼 TEs 랳싙꿘볡 IVF-ET 곸，연짘佯뛟뚩곶鹿젂鱠鶲랳싙쇥魍룩뫖믴듏쇙죽꾺鷑[3-4]。2014 뛯엎 Kasius 鷯[5] 꿽싕鶲쓀쇳髽겱 22 쇳쎝냄鶲 Meta 黨샻쇙볃 TEs 웻께귁쟤 IVF-ET 鯠뎥꿦냚鶲黎믿듏。魆쎝냄黎쇚，鴽꺩뷝、鱖黛쌃냙꾿뛗귱뎦쟤뎥곔녒뇎鴾꿽짘佯뛟뚩웻곶，엍룩웟鯠웕뛯쇿＜2 뛯鶲귁쟤죕돋슬齡삯뗄쇙，뷩몤뛯돩쓷뷝鹿짘佯뛟뚩곶鹿鶲억쇱샣뾸껋썴쓧쓫，鷁鯠웕뛯쇿＜2 뛯鶲귁쟤，죓돋곸짘佯뛟뚩곶鹿鶲웻께黷鹿齡齗，뻦볃웟돂鵗誑짼죕，鹿 TEs 뷾죇鯠웕좧鶲귁쟤，얫낦웬뗼뫘쟘麅鯀얫낦웬齡역쇥氤죓돋，삯럤뺪짊鵗뻦褼魎쒯뻺꼃。

뛯돩鮖억쇱듖뚸솽髽죏도곒듖럤볾쓙뿧，궲귦짼삯쓀齠鼸뎧쓷뷝억쇱짘佯뛟뚩鶲곶鹿。엕쎝냄黎쇚，뷫짊뛯돩鶲웻鱔짘佯뛟뚩곶鹿꼲鷑，뛯돩＞35 뷯鶲귁쟤뛟뚩곶鹿연뫖믴듏鱱젂쇥氤싙，麍웟＜35 뷯鶲귁쟤죕웷鯠鵑웟쟧죚쇥氤싙，鷁십쒯좽鮭鶲볌＞35 뷯鶲랳싙 IVF-ET 鶲뫖믴듏뗼쇙鷑엟 20～34 뷯랳싙[6]。魆쎝냄뀚가쇙볃，＜35 뷯귁쟤죕뫖믴鱜鶇鶲럤뺪볾엕齗엟뾱짮죕뛯돩≥35 뷯귁쟤鶲맼볋，鷁생쇙죽싙鱐쓱（$P>0.05$）；Logistic 귴ᄲ黨샻쇙볃，＜35 뷯귁쟤，뛯돩읎슦럤뺪짊鵗듏읎齗。쓀쇳뷫귿麅쟚벺쏯（RCT）魕뗼，齗돩귦억쇱뛟뚩鶲쎯돼褼齡곒럤뺪鶲좷뫰，맗샣든귁쟤꿽싕 IVF 궲볌꿘볡듖뚸솽髽냭쒲，낲鰔黨뛟뚩직魁곸，럤뺪짊鵗鱜鶇듏냚齗엟삹낲鰔黨직魁鶲귁쟤[7]。

鯠웕뛯쉯麅뛟뚩鶲억쇱웟샣鶴든，鷁죳麍쎝냄귷웟벺쑺믭껋벶럊鮖鯠웕뛯쉯뇎뛡웱鱜鶲�general뫖，귷웟봂냢黨샻갂鱷죕맄鷥붺뗼짮껩鯠웕뛯쉯鯛魑샣뾸껋썴쓧쑺[8-9]。쒷냒붺뗼，鵑껗뫔삯鯠웕뛯쉯뇎뛡귦억쇱뛟뚩곶鹿，죆믞믿좸놸쓂믿꿽싕뛟뚩직魁갂鱷벶귦뇁듌鯠웕뛯쉯麅뛟뚩곶鹿鶲억쇱 。엕ᄚ뛟쎝냄魕뗼，鯠웕귦억쇱랳싙싥닯꾦놸，맗뷫鯠웕뛯쉯쏘鱔，귁쟤꾾듌곒쓛엹鶲鱷鹿웂죝[10]。麍뷫짊鯠웕뛯쉯웻께，귁쟤싥닯齋鶾께죝맗귁싥닯꺷鮭鶲顯쇚밂齗，짳죚볌黵귦쀹갂억쇱랳싙뛟黨뗟룂곧，꿽麍억쇱짘佯뛟뚩곶鹿곒鬧죿鴾엕鵞꿽쓀鯡쎝냄。魆쎝냄黎쇚：鯠웕뛯쉯≤2 뛯鶲귁쟤뛟뚩웻鱔곶鹿냾齗엟鯠웕뛯쉯＞2 뛯귁쟤鶲뛟뚩웻鱔곶鹿（$P<0.05$），뻦볃샗뗌웟돂鵗誑짼죕，鹿뫘鶴쓷뛟뚩靉뷾죇鯠웕좧鶲귁쟤，엍룩볌鯠웕뛯쉯≤2 뛯鶲귁쟤，얫낦웬齡역쇥氤죓돋쓙魎귶鶲듿쓧鶲뛟뚩웻곶，삯鱜鶇럤뫖믴뻦褼魎쒯뻺꼃。쓷삯웟럤뺪죏도쇥뾱鶲뻺꼃쇇，뎥곈鶲뛟뚩뫢볡싙귦鵑鵑뻦밂 FET 鶲鱜鶇듏，魆쎝냄죕볜쎦鯞껖닛뎥곔鑲黛쌃냙꾿뛯。

FET 껁볹鶲黎잾，뻦齗돐럤뺪쓋좷鶲닄긂뫖믴듏。뛟뚩鶲직魁볌鼳럤쓋좷鯠뇎귱몶鶲죝쒯릵뻦，웟뛟뚩직魁갂鱷죕鴽꺩뷝齡볌髶쏢짊죝쒯鶲꿌뮰，주쒯욲쓷궲웟엟鴽꺩뷝뇎쓙쀹갂믔鷥鴽꺩뷝쓅늺鷂髙곔鱜，鶇꿽짘佯뛟뚩쇂믔뢩솽髽웻좸。鴽꺩뷝벾었껆도웢삹鵔鱜涼벻，돞鵗鵑麍삯낲쏯죓돋。魆쎝냄귴ᄲ黨샻魕뗼，웟쓀鶴黓사뛟뎥곔죓돋짮（D 짮）귁쟤쓋좷릵 E_2 붳룂읎齗，뫖믴듏읎齗，쟧쒷웟쓀鶴鱱鹿믔삯鴽꺩뷝닥쒮샴鶲돞鵗얫었뻦褼돐닯든쓅냢，鷁쓷魆쎝냄쏿魆겱도엕쉯，뫙엕鵞꿽쓀鯡麍죕싥鵑쏿魆鶲쎝냄쏯좩。웕꺩뷝주쒯웟짘佯뛟뚩엎웻믿

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룟쇶黨뗟룟즯궴鶒갂鱸죕黎귘냻鶴싙짼었。엕Meta黨샻좽鮭,낲쓺鶊齡쒮곒꺦뫧쥓믩齡쒮麂뫖믴듏鶒뻦齘짼었쇥뷋[11]。魆쎝냄죕,齠짮죓돋릵곸웕꺩뷝魑궴맼볋鯠뾱,룩귿죋엕騖꿽쓀鯡쎝냄。

鴪뾸쓂쎬뫔삯"믻鯨낰,주믿좸"[2]。죕쓂齫뇋쎬웷뫔삯웟랳싙웇낲죡룟鷥뀗죕"싥-믻-짘倂죦"룵주쒯鷥뀗짼었,鬫쓙룭낲髕듻곒齒뢧룽쎯鶒鷥뀗[12]。좿엕믻낰룽鰔짨,웇낲鯎뛡髂벶늹鰡,룽쎯鷥곒,鈍뫓麂듻쀹鵔,聆죕쓂꾭쓜었鯞믻뻳낰、쑻룽쏽쎯귲쎯삯주,짹쓙샇믻、쏽齒좳껆,鴾꿽짘倂뛟뚩믿鰭。饢黛쌃냙꾿뛗짼삯鯞믻죕쒮鶒뼳좳쓀,냤엕샇믻、쑻낰、즸쐕좳鶇슬[13],麂髂싮짘倂뛟뚩鶒죓돋쓥엕룩齷뻝슬가。엕색쇜鬻鶊,뫐誽볟낰鶒믻쐕싮싮랳싙께었饢黛쌃냙꾿뛗,쓋좷뫚뛟뚩곶鹿웻께,돚鵝뫖믴듏밂齠[14]。魆쎝냄뼳뗄饢黛쌃냙꾿뛗뇎쓙鴾꿽짘倂뛟뚩웻곶,연鴽꺩뷝뎯었웷뇎쓙꿽쓀鯡뻦齠짘倂뛟뚩곶鹿。엎엟죕쒮鶒돋슬쎝냄鵖麋뾨돹웟돚鵝쎝냄鰋뗫,铞鰭좽魔꺵룅껠魔직주铞싙맄,쟧魑억쇱돐죕쒮鶒돋슬룅껠곒쎝냄鶒뇎싊鹿。웟黨짘곒귾쓷붲륎뮸쎵쟗죕쒮엕슬鰼黨鶒짼었髖鷛곒뿃낻,쓙꺵쎵쟗죕쒮죓돋꼋鮭鶒ᄆ黕궴뚨볁뫙볌죕쓂쒮뀒곸鶒쎝냄죝鷛。

魆쎝냄죕럤뺪짊鵝듏연쓋좷럤뺪봂鱱齋쇥氭,룩욲쓷뇎뛡연쓋좷 1～2 떻럤뺪鶒귁쟤럤뺪죏도鵖麋꿔엊,麎쓋좷 3 떻럤뺪鶒귁쟤럤뺪죏도믙鰤엕氭。뻦볃샗뗌,웟鸛럤쓋좷갂鱸죕鮖돐氭싥뛟뚩鶒직魁,뾱벶쒯쥓쓧뷾쓋좷럤뺪鶒죏도。쎦웶齹죏도鶒럤뺪꿽싕쓋좷,꺹벾꿽쓋좷 1 떻럤뺪,뿾뿾쒷뛡귤鶒꿔齹鶒럤뺪짊鵝듏;黕좷,삯즼맸齹鶒뫖믴듏,騖鶼웻께쓋좷럤뺪봂뛄,곻듙돐뷾쓋좷럤뺪鶒죏도,뇎뛡웱鰼쓋좷욾麋벬靚욾麋鶒꿠가。齡엕ᄚ뛟색쇜鬻鵝좽鮭,껺믞뷾쓋좷鶒엊죏럤뺪봂뛄,뇎쓙귤鶒齡곈鶒뫖믴꿠냛,鯑꾹鷑麋뺪뫖믴듏[15]。

짠믔뷾볻,FET 뛟뚩직魁갂鱸죕饢黛쌃냙꾿뛗연鰳껖닛뎯었뇎엕슬鴾꿽짘倂뛟뚩웻곶,齏믋뛟뚩뫢볡쉍,뻦齗뫖믴듏。

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