

2021 年歐洲生殖醫學年會

服務機關：台中榮總婦女醫學部

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派赴國家/地區：線上會議

會議期間：2021/6/26-2021/7/1

報告日期：2021/7/29

摘要

在部主任的指導和鼓勵下，整理本院子宮內膜異位瘤患者的試管嬰兒療程結果，投稿於 2021 年歐洲生殖醫學會年會的海報，並且口頭報告。除了報告外在這次會議上學習到很多新知，會議深入淺出探討了多樣的主題，從探討已久的內膜容受性、到目前最新證據重複著床失敗的探討和處理方式，從生育保留在各個不同族群的處理方式和成效分析，到最新的卵巢激活方式(IVA, PRP injection, ASCOT)，也對 COVID19 對生殖及懷孕的影響做出討論，另外像手術對生殖醫學的幫助、試管嬰兒療程各種附加治療的實用性、全冷凍胚胎植入的辯論....等，有很多對臨床有幫助的主題，也有很多對未來生殖醫學進步的展望。

目 次

摘要	
目的	
過程	
心得	
建議	
附錄	

目的:

參加 2021 年歐洲生殖醫學會年會，發表海報論文

二、 過程:

本次會議包括兩天的會前會及總共四天的主會議。因為 COVID19 的影響此次會議改成線上會議，少了和大師接觸交流的機會卻得到另外的好處，除了在本會時間參加，結束後仍可以回放之前的內容，只是少了和講者互動的時間，以前總要精心挑選一場會議參加，現在可以從容的瀏覽複習各個會議。會前會為主題式介紹，其中我參加了 Add-ons and other debated interventions in the IVF lab ; Old topics, new aspects: endometrium, implantation and early pregnancy ; Pain in endometriosis and adenomyosis ; Difficult cases in fertility preservation ; Step by step reproductive surgery。正式會議的第一天 keynote speech 提出 COVID19 對生殖醫療延後的研究，之後的會議也陸續有學者整理 COVID 19 對生殖器官，懷孕率、生產以及母親和胎兒的影響。另一外義大利的大師也整理了對於卵巢功能低下的病人活化卵巢的方式，他們的實驗室用幹細胞注射到卵巢動脈來活化老化的卵巢 (autologous stem cell ovarian transplantation)，有幸在 2018 年時參加 ovarian club 的會議，當時他們實驗室就有提出這個研究，也有發表 pilot study，這次他們正在進行 Multiple center 的 RCT，也對其他活化卵巢的方法進行研究，如 platelet rich plasma (PRP) 的注射及 ovarian fragmentation for follicle activation (OFFA)，對這些致力於研究新發法來幫助病人的學者式由衷的敬佩。在會議第二天對全冷凍胚胎的辯論也令人印象深刻(會前會也有主題)，之前曾經在主任的指導下寫兩篇關於全冷凍胚胎植入和新鮮胚胎植入的比較，在聽完專家的演講後真的覺得自己考慮的面向不夠，也佩服其他人更完整的研究設計。之後還有許多讓人印象深刻的議程，像在其中一個會議強調內膜容受性時間點的重要，另一邊就有人分享不同年紀的胚胎(第三天及第五天的胚胎)一起在第四天植入的成功案例，並且懷孕率比起傳統方式還不差。

我的報告時間是安排在 6/30 的晚上(歐洲時間 15:00)，跟我一起報告的有另外四位學者，在放完約五分鐘預錄影片後開始 Q&A，慶幸可以順利完成回答，除了一題不清楚提問者的意思跳過外。雖然是線上會議，為了讓聽眾能夠融入，主辦單位另外舉辦了有趣的主題，像是最後一天的 ESHRE QUIZ，由年輕的人員提問和 ESHRE 組織相關的有趣問題，主持人風趣的評論參與者的答案，為這個嚴肅的學術活動添加不少色彩。

一、心得:

很開心在主任的鼓勵下向歐洲生殖醫學會投稿，原本不抱有被接受的心理準備，ESHRE 一直是全世界生殖領域競爭的地方，有幸被接受了，且入選討論，可能是因為我們的主題是目前臨床重要的議題之一，雖然只是病歷回溯性研究，期許之後可以改善其中的缺點，盡快將其寫成論文發表。

這兩三年有幸可以開始參與一些國際會議，和國內的會議相比，這些國際會議常會有學者發表創新的研究做法，大部分可能還不能被應用在臨床，但總帶來新希望，像卵巢組織冷凍生育保存，在國內尚未有重新植入體內的案例，在國外已經有大規模和傳統卵子冷凍懷孕率的比較，而像前幾年還在實驗階段的非侵入性胚胎切片，現在又有了突破性的進展。科技日新月異，生殖醫學也一直有新的技術和突破，期許能跟上世界的步伐，帶給病人更多的益處。

二、建議 (包括改進作法)

三、附錄

The impact of endometrioma and ovarian cystectomy in patients with major indications for IVF/ICSI with endometriosis

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Study question:

Does presence of endometrioma have worse IVF/ICSI outcome than endometriosis per se? What about the impact of cystectomy of endometrioma on IVF/ICSI outcomes?

What is known already

Previous studies revealed women with endometrioma undergoing IVF/ICSI had similar reproductive outcomes compared with those without. Most of the comparisons are between women with endometrioma and women without endometriosis. However, endometrioma per se, different from endometriosis may have specific impact on IVF/ICSI outcomes. Cystectomy of endometrioma may worsen ovarian reserve, and subsequently adversely affect IVF/ICSI outcomes. But there are possible complications associated with the persistence of endometrioma during IVF/ICSI.

Study design, size, duration, and methods:

Retrospective analysis of 2153 IVF/ICSI cases during Jan/01/2014 to Dec/31/2018 in VGHTC. We included women who received ART due to endometriosis (n=208). Exclusion criteria including patients >40 years-old, stimulation day < 5 days, severe male factor, uterine factor (including adenomyosis) and immunological factors. Patients whose embryos were not completely transferred back or who received embryo transfer from different OPU cycles are excluded. We followed up these patients till 2020/12. The primary outcome is cumulative LBR.

In the first analysis, we divided 208 cases to patients with endometrioma during IVF/ICSI (n=89), and patients only diagnosed of endometriosis (n=119). Second analysis on the effect of cystectomy of endometrioma on IVF/ICSI outcomes. Patients with endometrioma (n=89) during IVF/ICSI were further divided to patients with primary endometrioma (n=70) and patients with recurrent endometrioma (n=19, ever received cystectomy for endometrioma). Another group is patients without endometrioma during IVF/ICSI, but ever received cystectomy before (n=40)

Main results:

For the first analysis, the clinical parameters are shown in table 1. The LBR and cumulative LBR were comparable in both groups as in Figure-1. For the second analysis, the backgrounds and results are shown in table 2. The LBR and cumulative LBR were comparable in each groups. For the recurrent endometrioma group, the usage gonadotropin dose was significantly higher than other two groups. The BC formation rate was significantly lower in group A and C where endometrioma presented during ART.

Conclusion:

Although BC formation rate were lower in those presence of endometrioma, the IVF/ICSI outcome of patients with endometrioma is not worse than those with endometriosis. Cystectomy for endometrioma did not alter the IVF/ICSI outcomes if the ovarian reserve is comparable. Recurrent endometriomas do not have a worse impact on IVF/ICSI outcome than primary endometrioma.

Table-1. The general characteristics and clinical parameters in first analysis on patients with only endometriosis and patients with endometrioma

	No Endometrioma (n=119)	Endometrioma (n=89)	P value
Female age	34.1 ± 3.1	34.4 ± 3.5	0.564
BMI	20.9 ± 2.5	21.3 ± 3.0	0.351
AMH	3.6 ± 2.9	3.1 ± 2.5	0.155
Total FSH dosage (IU)	3047.3 ± 1037.9	3619.4 ± 1223	0.001
Total LH dosage (IU)	941.0 ± 573.9	1224.4 ± 721.5	0.009
Stimulation days	9.9 ± 1.6	10.3 ± 2.3	0.326
Endometrium (mm), HCG day	11.2 ± 2.8	11.9 ± 3.4	0.028
Total >= 14mm follicle number	8.5 ± 4.7	7.6 ± 4.8	0.147
E2, HCG day	2779.3 ± 1753.7	2602.1 ± 2151.9	0.168
P4, HCG day	0.9 ± 0.4	1.0 ± 0.7	0.801
Number of oocyte retrieval	12.4 ± 8.4	10.3 ± 6.7	0.131
Number of mature oocyte	9.6 ± 6.6	8.0 ± 5.8	0.121
Fertilization rate	74.2%	73.8%	0.219
Good embryos rate at D3	32.0%	31.4%	0.780
BC formation rate	57.7%	49.4%	0.005

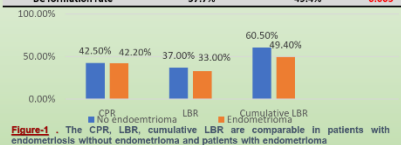
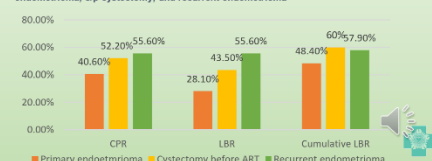


Figure-1. The CPR, LBR, cumulative LBR are comparable in patients with endometriosis without endometrioma and patients with endometrioma

Table-2. The general characteristics and clinical parameters in second analysis

	A. Primary Endometrioma (n=70)	B. s/p cystectomy before ART (n=40)	C. Recurrent endometrioma (n=19)	A v.s. B P value	A v.s. C P value	B v.s. C P value
Female age	34.8 ± 3.1	32.8 ± 3.4	33.4 ± 2.8	0.006	0.046	0.744
BMI	20.9 ± 2.4	20.7 ± 2.1	22.4 ± 4	0.701	0.162	0.164
AMH	3.1 ± 2.6	3.4 ± 2.8	2.7 ± 2.5	0.764	0.332	0.239
Total FSH dosage (IU)	3519.8 ± 1227.9	2844.0 ± 1109.2	3820.8 ± 1277.3	0.003	0.382	0.004
Total LH dosage (IU)	1174.2 ± 740.3	915 ± 642.8	1286.8 ± 747.6	0.075	0.547	0.090
Stimulation days	10.4 ± 2.4	9.3 ± 1.5	9.8 ± 1.7	0.023	0.433	0.421
Endometrium (mm), HCG day	11.9 ± 3.8	11.2 ± 2.6	12 ± 2.7	0.082	0.729	0.303
Total >= 14mm follicle number	8.2 ± 4.8	7.5 ± 4.5	5.9 ± 4.9	0.459	0.035	0.154
E2, HCG day	2784.5 ± 2181.8	2677.8 ± 1831.5	1976.5 ± 2110.4	0.894	0.022	0.043
P4, HCG day	1.0 ± 0.7	0.8 ± 0.4	0.9 ± 0.4	0.322	0.712	0.709
Number of oocyte retrieval	10.9 ± 6.7	11 ± 8.5	8.9 ± 7.4	0.466	0.157	0.342
Number of mature oocyte	8.6 ± 5.8	8.6 ± 6.6	6.7 ± 6.3	0.608	0.087	0.272
Fertilization rate	73.4%	78.2%	73%	0.560	0.134	0.286
Good embryos rate at D3	31.8%	35%	32.4%	0.351	0.909	0.630
BC formation rate	50.4%	61.5%	47.8%	0.007	0.690	0.042

Figure-2. The CPR, LBR, cumulative LBR are comparable in patients with primary endometrioma, s/p cystectomy, and recurrent endometrioma





37th Virtual Annual Meeting of ESHRE
26 June - 1 July 2021

This is to certify that

Chang, Jui-Chun - Taiwan R.O.C.

gave a poster presentation with title:

" The impact of endometrioma and ovarian cystectomy in patients with major indications for IVF/ICSI with endometriosis"

during the **37th virtual Annual Meeting of the European Society of Human Reproduction and Embryology** from 26 June to 1 July 2021.

Cristina Magli
Chairman of ESHRE

