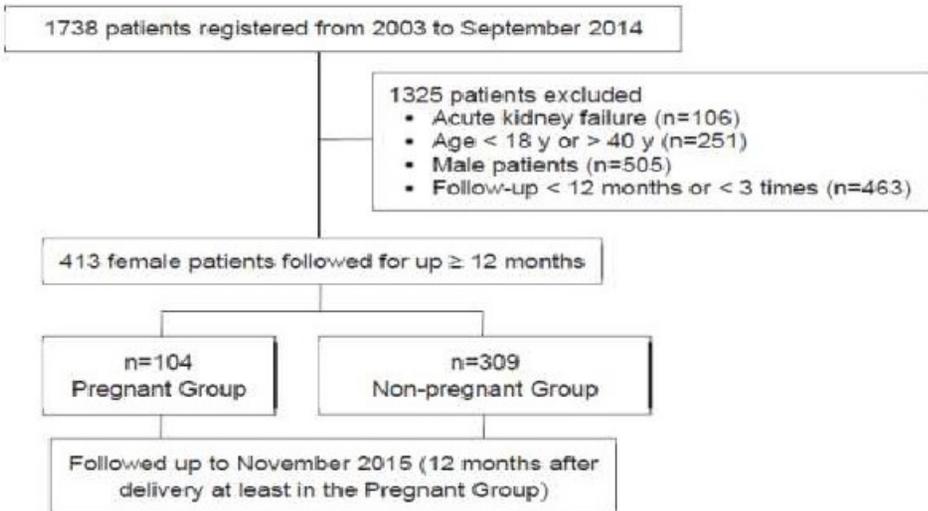


## 醫療新知

### 腎功能不佳之免疫球蛋白 A (IgAN)腎炎患者，妊娠會加速腎臟病的惡化

- 免疫球蛋白 A 腎病 (IgAN) 是全球最常見的原發性腎絲球性腎炎，因 IgAN 發生率高峰在育齡期，所以女性 IgAN 患者常需面對懷孕這個課題。在懷孕期間及分娩後，患者常需面對的問題包括：腎臟疾病是否會快速惡化及胎兒和母親是否會有併發症的發生。為了評估懷孕 IgAN 患者其腎臟疾病的長期預後，國際知名期刊 Am J Kidney Dis. 於 2017 年 7 月刊登了中國學者蘇小樂醫師及其團隊所做的研究，這份研究總共收集的 413 位免疫球蛋白 A 腎病 (IgAN) 的 18~40 歲的女性患者，將這些患者分成有懷孕及沒有懷孕兩組，去追蹤統計懷孕是否會加速腎功能的惡化及是否會增加胎兒和母親併發症的發生。
- 結果顯示，慢性腎臟病 1~2 級 (CKD stage 1~2) 的免疫球蛋白 A 腎病 (IgAN) 於懷孕期間並沒有增加腎臟疾病進展的風險；但是對於慢性腎臟病 3~4 級 (CKD stage 3~4) 的免疫球蛋白 A 腎病 (IgAN) 其懷孕期間會明顯加速腎臟疾病進展的風險 (為一般情況的五倍)，而且胎兒流失的風險也相對較高度 (僅有 55% 的胎兒會存活)。而懷孕初期孕婦的蛋白尿情況為一強烈的危險因子。



**Figure 1.** Flow chart of patient selection.

★這份研究總共收集的 413 位免疫球蛋白 A 腎病 (IgAN) 的 18~40 歲的女性患者，  
將這些患者分成有懷孕 (104 人) 及沒有懷孕 (309 人) 兩組

**Table 1.** Baseline Characteristics Stratified by CKD Stage at Baseline

Characteristic	CKD stage 1 (n = 206)	CKD stage 2 (n = 101)	CKD stages 3-4 (n = 46)
Age, y	27.6 ± 5.8	29.6 ± 5.6	29.5 ± 5.5
eGFR, mL/min/1.73 m <sup>2</sup>	112.4 ± 13.5	77.9 ± 8.6	45.7 ± 12.1
Proteinuria level, g/d	1.07 (0.02-11.7)	1.40 (0.10-7.26)	2.46 (0.14-11.78)
Proteinuria category			
<1 g/d	126 (47)	32 (32)	10 (22)
1-3.5 g/d	113 (42)	57 (56)	22 (48)
>3.5 g/d	27 (10)	12 (12)	14 (30)
Systolic BP, mm Hg	114.3 ± 11.9	119.7 ± 15.0	122.9 ± 16.0
Diastolic BP, mm Hg	73.1 ± 9.7	78.3 ± 12.3	76.8 ± 12.2
MAP, mm Hg	86.8 ± 9.7	91.9 ± 12.7	91.5 ± 12.5
Hypertension	13 (5)	33 (33)	21 (46)
Oxford classification			
M1	193 (73)	82 (81)	42 (91)
E1	147 (55)	56 (55)	31 (67)
S1	169 (64)	71 (70)	40 (87)
T1	46 (17)	26 (26)	18 (39)
T2	8 (3)	12 (12)	20 (43)
Treatment before pregnancy			
Untreated	93 (35)	25 (25)	4 (9)
RAS blocker treatment alone	110 (41)	53 (52)	21 (46)
Glucocorticoids and/or other <sup>a</sup>	63 (24)	23 (23)	21 (46)
Follow-up, mo	69 ± 38	69 ± 21	50 ± 24

Note: Values for categorical variables are given as number (percentage); values for continuous variables, as mean ± standard deviation or median (range).

Abbreviations: BP, blood pressure; CKD, chronic kidney disease; eGFR, estimated glomerular filtration rate; MAP, mean arterial pressure; RAS, renin-angiotensin system.

<sup>a</sup>Other immunosuppressive agents.

★這 413 位免疫球蛋白 A 腎病 (IgAN) 的 18~40 歲的女性患者，依照慢性腎臟病  
CKD 分成 3 組 (stage 1, 2, 3-4)

Table 3. Stratified and Interaction Analysis for Pregnancy and Kidney Progression Events

	Pregnancy Group				Nonpregnancy Group		Adjusted HR <sup>a</sup> (95% CI)	P <sup>b</sup>
	Interval: Baseline to First Pregnancy, mo <sup>c</sup>	Interval: Delivery to End Point Event, mo <sup>c</sup>	No. of Patients	No. of Events	No. of Patients	No. of Events		
<b>ESKD or 30% eGFR decline</b>								
Total	34 (0-91)	31 (13-97)	104	20	309	69	1.23 (0.71-2.13)	0.5
CKD stage 1	63 (21-91)	55 (13-91)	72	11	194	36	1.08 (0.49-2.41)	0.8
CKD stage 2	6 (0-65)	41 (23-97)	21	4	80	18	1.32 (0.37-4.71)	0.7
CKD stages 3-4	0 (0-17)	25 (18-53)	11	5	35	15	5.14 (1.16-22.74)	0.03
P <sup>b</sup> for interaction								0.02
<b>ESKD or 50% eGFR decline</b>								
Total	59 (0-96)	21 (12-50)	104	7	309	31	1.24 (0.50-3.07)	0.6
CKD stage 1	59 (66-96)	15 (12-20)	72	3	194	12	1.16 (0.22-6.22)	0.9
CKD stage 2	65 (65-65)	30 (30-30)	21	1	80	9	0.54 (0.05-6.27)	0.6
CKD stages 3-4	0 (0-17)	21 (28-50)	11	3	35	10	6.40 (0.74-57.08)	0.09
P <sup>b</sup> for interaction								0.2
<b>ESKD</b>								
Total	30 (0-66)	22 (21-26)	104	4	309	18	1.68 (0.52-5.44)	0.4
CKD stage 1	63 (59-66)	22 (20-23)	72	2	194	7	2.09 (0.33-13.25)	0.4
CKD stage 2 <sup>c</sup>	NA	NA	21	0	80	5	NA	NA
CKD stages 3-4	0 (0-0)	24 (21-26)	11	2	35	6	2.33 (0.26-21.11)	0.5
P <sup>b</sup> for interaction								0.1

Note: CKD stages 1, 2, 3, and 4 were defined as eGFR  $\geq 90$ , 60 to 89, 30 to 59, and 15 to 29 mL/min/1.73 m<sup>2</sup>. Unless otherwise indicated, values are given as median (range).

Abbreviations: CI, confidence interval; CKD, chronic kidney disease; eGFR, estimated glomerular filtration rate; ESKD, end-stage kidney disease; HR, hazard ratio; MAP, mean arterial pressure; NA, not available.

<sup>a</sup>Only for patients having the end point events.

<sup>b</sup>HR and P values for comparison of the pregnancy versus nonpregnancy groups adjusted for baseline age, mean arterial pressure, proteinuria, eGFR, and Oxford MEST (M, mesangial, and E, endocapillary, proliferation [hypercellularity]; S, glomerulosclerosis; and T, tubular atrophy and interstitial fibrosis) classification, using a time-dependent Cox proportional hazards regression with pregnancy status as a time-dependent exposure and time of biopsy as the start of follow-up.

<sup>c</sup>No ESKD events in patients with CKD stage 2.

- 慢性腎臟病 3~4 級 (CKD stage 3~4) 的免疫球蛋白 A 腎病 (IgAN) 懷孕期間會明顯加速腎臟疾病進展的風險 (為一般情況的五倍)

Table 4. Rate of Change in eGFR stratified by Pregnancy Group Status and CKD Stage at Baseline

	Pregnancy Group			Nonpregnancy Group	P <sup>a</sup>
	Interval: Baseline to First Pregnancy, mo	Follow-up After Delivery, mo	Rate of Change in eGFR, mL/min/1.73 m <sup>2</sup> per y	Rate of Change in eGFR, mL/min/1.73 m <sup>2</sup> per y	
Total	9 (0-91)	31 (12-163)	-3.78 $\pm$ 3.60	-3.42 $\pm$ 3.43	0.4
CKD stage 1	11 (0-91)	27 (12-163)	-3.38 $\pm$ 3.57	-3.63 $\pm$ 3.58	0.6
CKD stage 2	11 (0-65)	31 (12-97)	-3.24 $\pm$ 1.87	-2.72 $\pm$ 3.01	0.5
CKD stages 3-4	0 (0-43)	34 (15-53)	-7.44 $\pm$ 4.31	-3.90 $\pm$ 3.37	0.007

Note: CKD stages 1, 2, 3, and 4 were defined as eGFR  $\geq 90$ , 60 to 89, 30 to 59, and 15 to 29 mL/min/1.73 m<sup>2</sup>. Values for continuous variables are given as median (range) or mean  $\pm$  standard deviation according to their distribution.

Abbreviations: CKD, chronic kidney disease; eGFR, estimated glomerular filtration rate.

<sup>a</sup>P values for comparison of the pregnancy versus nonpregnancy groups adjusted for baseline age, mean arterial pressure, proteinuria, eGFR, and Oxford MEST (M, mesangial, and E, endocapillary, proliferation [hypercellularity]; S, glomerulosclerosis; and T, tubular atrophy and interstitial fibrosis) classification.

- 慢性腎臟病 3~4 級 (CKD stage 3~4) 的免疫球蛋白 A 腎病 (IgAN) 懷孕期間會明顯加速腎臟疾病進展的風險, 每年腎功能下降的速度也較其他組快速。

資料來源： 安慎診所洗腎室

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