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妊娠期高血压患者产后抑郁的影响因素探讨及其生命质量调查 *

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摘要 目的:探讨妊娠期高血压患者产后抑郁的影响因素,调查其生命质量。**方法:**选择2016年6月至2021年6月于我院产科分娩的312例妊娠期高血压患者,采用爱丁堡产后抑郁量表(EPDS)评估患者产后抑郁发生率。收集临床资料,采用多因素Logistic回归分析影响妊娠期高血压患者发生产后抑郁的危险因素。采用中文版36项简明健康状况调查表(SF-36)评估患者生命质量。**结果:**312例妊娠期高血压患者中有66例发生产后抑郁,发生率为21.15%。单因素分析结果显示,抑郁组年龄 ≥ 35 岁、受教育程度在高中(中专)及以下、无经济收入、婚姻状况为未婚/离异/丧偶、有妊娠并发症、分娩孕周 <36 周、无导乐陪产、新生儿疾病、伤口剧烈疼痛、产后出血、产褥感染、产后血压控制差的比例高于无抑郁组($P<0.05$)。多因素Logistic回归分析显示,新生儿疾病、分娩孕周 <36 周、产后血压控制差、无经济收入、受教育程度低是妊娠期高血压患者发生产后抑郁的危险因素($P<0.05$)。抑郁组SF-36躯体功能、生理职能、躯体疼痛、总体健康、生命活力、社会功能、情感功能、精神健康评分均低于无抑郁组($P<0.05$)。**结论:**新生儿疾病、分娩孕周 <36 周、产后血压控制差、无经济收入、受教育程度低是妊娠期高血压患者产后抑郁的危险因素,产后抑郁患者生命质量较低,临床应加强产后心理干预,改善患者生命质量。

关键词:妊娠期高血压;产后抑郁;影响因素;生命质量

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Study on Influencing Factors of Postpartum Depression in Hypertensive Patients during Pregnancy and Investigation on Quality of Life*

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ABSTRACT Objective: To investigate the influencing factors of postpartum depression in hypertensive patients during pregnancy, and to investigate their quality of life. **Methods:** A total of 312 cases of hypertensive patients during pregnancy who delivered in obstetrics of our hospital from June 2016 to June 2021 were selected, the incidence of postpartum depression was assessed by the Edinburgh Postpartum Depression Scale (EPDS). Clinical data were collected, and multivariate Logistic regression was used to analyze the risk factors of postpartum depression in hypertensive patients during pregnancy. The Chinese version of the Mos 36-item short form health survey (SF-36) was used to assess patients' quality of life. **Results:** Among 312 patients with hypertension during pregnancy, 66 patients developed postpartum depression, the incidence was 21.15%. Univariate analysis showed that proportion of age ≥ 35 years old, education level of senior high school (technical secondary school) or below, no economic income, marital status was unmarried/divorced/widowed, with pregnancy complications, gestational weeks of delivery < 36 weeks, no doula delivery, neonatal diseases, severe wound pain, postpartum bleeding, puerperal infection and poor postpartum blood pressure control in the depression group were higher than those in the non-depression group ($P<0.05$). Multivariate Logistic regression analysis showed that neonatal disease, gestational weeks of delivery < 36 weeks, poor postpartum blood pressure control, no economic income and low education level were the risk factors for postpartum depression in patients with gestational hypertension ($P<0.05$). The SF-36 scores of Somatic function, physical function, physical pain, general health, vitality, social function, emotional function and mental health in the depression group were lower than those in the non-depression group ($P<0.05$). **Conclusion:** Neonatal disease, gestational weeks of delivery < 36 weeks, poor postpartum blood pressure control, no economic income, low education level are the risk factors of postpartum depression in patients with gestational hypertension. The quality of life of patients with postpartum depression is low. Postpartum psychological intervention should be strengthened to improve the quality of life of patients.

Key words: Gestational hypertension; Postpartum depression; Influence factor; Quality of life

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前言

产后抑郁是分娩后最常见的并发症,常见症状包括情绪波动、易怒、焦虑、沮丧、疲劳,严重者可出现自杀或杀婴行为,导致母婴依恋性较差和养育行为受损,严重影响产妇和婴儿的健康^[1]。妊娠期高血压是妊娠期常见的并发症,可导致胎儿生长受限、早产和围产期死亡,并增加孕妇产后慢性高血压、肾功能不全、血脂异常、糖尿病、亚临床动脉粥样硬化和心血管等疾病的患病风险^[2]。妊娠期高血压是产后抑郁发病的危险因素,与正常孕妇相比,妊娠期高血压孕妇产后抑郁发病率^[3]和爱丁堡产后抑郁量表(Edinburgh postnatal depression scale, EPDS)评分更高^[4]。鉴于此,本研究探讨妊娠期高血压患者发生产后抑郁的影响因素以及对患者生命质量的影响,以期为临床妇产科医务人员提供参考。

1 资料与方法

1.1 一般资料

选择2016年6月至2021年6月于我院产科分娩的312例妊娠期高血压患者作为研究对象。年龄22~40岁,平均年龄(34.12±2.19)岁;分娩孕周32~41周,平均(37.12±3.05)周。纳入标准:^①符合中华妇产科杂志《妊娠期高血压疾病诊治指南(2015)》^[5]中的妊娠期高血压疾病诊断标准,即:同一只手至少2次测量的收缩压≥140 mmHg和(或)舒张压≥90 mmHg,伴或不伴尿蛋白异常(尿蛋白≥0.3 g/24 h,或尿蛋白/肌酐比值≥0.3或随机尿蛋白≥+);^②年龄20~40岁;^③知情同意签署同意书。排除标准:^④语言障碍,无法配合调查;^⑤死亡产妇;^⑥文盲;^⑦产前精神或神经系统疾病。本研究获得我院医学伦理会批准。

1.2 方法

(1)产后抑郁评估:产后6周内采用EPDS量表^[6]结合症状评估产妇抑郁情况。由患者自评最近1周的感受,包括“在过去的7天里,我可以微笑,看见事情好的一面”、“在过去的7天里,我寻找快乐的事情”、“在过去的7天里,发生故障时,我常有没有缘故的责备自己”、“在过去的7天里,我常没有缘故的焦虑”等10个条目,每个条目采用0~3分的4级评分法,总分为30分,得分越高表示抑郁情绪越严重,总分>13分判

定为产后抑郁。根据是否发生产后抑郁将312例患者分为抑郁组和无抑郁组。(2)临床资料收集:于分娩前后收集患者的年龄、孕次、产次、婚姻状况、受教育程度、经济收入状况、高血压家族史、妊娠期高血压发病孕周、妊娠并发症(妊娠期贫血、妊娠期糖尿病、胎盘早剥、特发性血小板减少性紫癜等)、分娩方式(剖宫产、阴道分娩)、分娩孕周、导乐陪产、新生儿疾病(先天性疾病、低体重儿、窒息、肺炎、死亡等)、伤口剧烈疼痛、产后出血、产褥感染、产后血压控制(收缩压/舒张压稳定于130~150/80~90 mmHg为良好,高于150/90 mmHg为差)等资料。(3)生命质量评估:产后6周内采用浙江大学医学院学者李鲁等^[7]翻译修订的中文版36项简明健康状况调查表(the Mos 36-item short form health survey, SF-36),评估患者生命质量,该量表包括躯体功能、生理机能、躯体疼痛、总体健康、生命活力、社会功能、情感功能、精神健康8个维度,各维度得分范围为0~100分,得分越高则表明生命质量越好。

1.3 统计学分析

应用SPSS 22.00软件进行数据分析,Shapiro-Wilk检验计量资料符合正态分布以($\bar{x} \pm s$)表示,组间比较采用独立样本t检验。以例(%)表示计数资料,组间比较及单因素分析采用 χ^2 检验。多因素Logistic回归分析产后抑郁的危险因素。检验水准 $\alpha=0.05$ 。

2 结果

2.1 妊娠期高血压患者产后抑郁发生率

312例妊娠期高血压患者中有66例发生产后抑郁,246例未发生产后抑郁,产后抑郁发生率为21.15%。

2.2 影响妊娠期高血压患者发生产后抑郁的单因素分析

312例患者分为抑郁组(66例)和无抑郁组(246例),行单因素分析,结果显示:抑郁组年龄≥35岁、受教育程度在高中(中专)及以下、无经济收入、婚姻状况为未婚/离异/丧偶、有妊娠并发症、分娩孕周<36周、无导乐陪产、新生儿疾病、伤口剧烈疼痛、产后出血、产褥感染、产后血压控制差的比例高于无抑郁组($P<0.05$),而两组间不同孕次、产次、高血压家族史、妊娠期高血压发病孕周、分娩方式比较无统计学差异($P>0.05$),见表1。

表1 影响妊娠期高血压患者发生产后抑郁的单因素分析[例(%)]

Table 1 Univariate analysis of postpartum depression in patients with gestational hypertension [n (%)]

Factors	Depression group(n=66)	Non-depression group (n=246)	χ^2	P
<i>Age</i>				
≥35 years old	30(45.45)	79(32.11)	4.075	0.044
<35 years old	36(54.55)	167(67.89)		
<i>Education level</i>				
Senior high school (technical secondary school) or below	48(72.73)	141(57.32)	5.175	0.023
College degree or above	18(27.27)	105(42.68)		
<i>Economic income</i>				

Yes	46(69.70)	205(83.33)	6.152	0.013
No	20(30.30)	41(16.67)		
Pregnancy times				
≥ 3 times	31(46.97)	106(43.09)	0.318	0.573
<3 times	35(53.03)	140(56.91)		
Birth times				
≥ 3 times	20(30.30)	61(24.80)	0.821	0.365
<3 times	46(69.70)	185(75.20)		
Marital status				
Married/remarried	42(63.64)	187(76.02)	4.085	0.043
Unmarried / divorced / widowed	24(36.36)	59(23.98)		
Family history of hypertension				
Yes	22(33.33)	77(31.30)	0.099	0.753
No	44(66.67)	169(69.70)		
Gestational age of hypertensive disorder complicating pregnancy				
<28 weeks	12(18.18)	51(20.74)	0.392	0.822
28~34 weeks	30(45.45)	102(41.46)		
>34 weeks	24(36.37)	93(37.80)		
Pregnancy complications				
Yes	34(51.52)	91(36.99)	4.571	0.033
No	32(48.48)	155(63.01)		
Mode of delivery				
Cesarean section	40(60.61)	171(69.51)	1.885	0.170
Vaginal delivery	26(39.39)	75(30.49)		
Gestational week of delivery				
<36 weeks	32(48.48)	62(25.20)	13.399	0.000
≥ 36 weeks	34(51.52)	184(74.80)		
Doula delivery				
Yes	28(42.42)	138(56.10)	3.908	0.048
No	38(57.58)	108(43.90)		
Neonatal diseases				
Yes	38(57.58)	73(29.67)	17.675	0.000
No	28(42.42)	173(70.33)		
Severe wound pain				
Yes	20(30.30)	47(19.11)	3.869	0.049
No	46(69.70)	199(80.89)		
Postpartum bleeding				
Yes	19(28.79)	42(17.07)	4.540	0.033
No	47(71.21)	204(82.93)		
Puerperal infection				
Yes	13(19.70)	26(10.57)	3.964	0.046
No	53(80.30)	220(89.43)		

Postpartum blood pressure control				
Good	38(57.58)	192(78.05)	11.258	0.001
Poor	28(42.42)	54(21.95)		

2.3 影响妊娠期高血压患者发生产后抑郁的多因素 Logistic 回归分析

将上述单因素分析中具有差异的项目纳入 Logistic 回归方程,以妊娠期高血压患者是否发生产后抑郁为因变量,赋值

见表 2,采用 ENTER 法,最终分析结果显示:新生儿疾病、分娩孕周<36 周、产后血压控制差、无经济收入、受教育程度低是妊娠期高血压患者发生产后抑郁的危险因素($P<0.05$),见表 3。

表 2 变量赋值
Table 2 Variable assignment

	Variable	Assignment
Dependent variable	Postpartum depression	0=no, 1=yes
Independent variable	Age	0=<35 years old, 1=≥ 35 years old
	Education level	0=College degree or above, 1=Senior high school (technical secondary school) or below
	Economic income	0=no, 1=yes
	Marital status	0=married/remarried, 1=unmarried / divorced / widowed
	Pregnancy complications	0=no, 1=yes
	Gestational week of delivery	0=≥ 36 weeks, 1=<36 weeks
	Doula delivery	0=yes, 1=no
	Neonatal diseases	0=no, 1=yes
	Severe wound pain	0=no, 1=yes
	Postpartum bleeding	0=no, 1=yes
	Puerperal infection	0=no, 1=yes
	Postpartum blood pressure control	0=good, 1=poor

表 3 影响妊娠期高血压患者发生产后抑郁的多因素 Logistic 回归分析
Table 3 Multivariate logistic regression analysis of postpartum depression in patients with gestational hypertension

Factors	β	SE	Wald χ^2	OR(95%CI)	P
Age	0.123	0.117	1.105	1.131(0.899~1.422)	0.906
Education level	0.429	0.135	10.098	1.536(1.179~2.001)	0.000
Economic income	0.632	0.187	11.422	1.881(1.304~2.714)	0.000
Marital status	0.259	0.211	1.507	1.296(0.857~1.959)	0.732
Pregnancy complications	0.292	0.269	1.178	1.339(0.790~2.269)	0.847
Gestational week of delivery	1.095	0.324	11.422	2.989(1.584~5.641)	0.000
Doula delivery	0.132	0.107	1.522	1.141(0.925~1.407)	0.691
Neonatal diseases	1.695	0.406	17.430	5.447(2.458~12.070)	0.000
Severe wound pain	0.083	0.071	1.367	1.087(0.945~1.249)	0.775
Postpartum bleeding	0.105	0.096	1.196	1.111(0.920~1.341)	0.833
Puerperal infection	0.132	0.118	1.251	1.141(0.905~1.438)	0.801
Postpartum blood pressure control	0.814	0.205	15.767	2.257(1.510~3.373)	0.000

2.4 对比抑郁组和无抑郁组的生命质量相关评分 抑郁组躯体功能、生理职能、躯体疼痛、总体健康、生命活

力、社会功能、情感功能、精神健康评分均低于无抑郁组($P<0.05$),见表 4。

表 4 抑郁组和无抑郁组生命质量评分差异($\bar{x} \pm s$, 分)Table 4 Difference in quality of life scores between depression group and non depression group ($\bar{x} \pm s$, scores)

Groups	n	Somatic function	Physical function	Physical pain	General health	Vitality	Social function	Emotional function	Mental health
Depression group	66	67.02±8.02	22.15±3.26	70.12±6.29	60.21±7.15	62.05±7.41	79.15±6.08	32.55±4.08	62.03±6.41
Non-depression group	246	70.12±10.24	24.01±4.12	73.15±7.46	63.26±8.02	65.35±8.09	83.61±7.84	35.62±5.37	66.42±7.84
t		-2.278	-3.392	-3.023	-2.804	-2.994	-4.287	-4.320	-4.188
P		0.023	0.001	0.003	0.005	0.003	0.000	0.000	0.000

3 讨论

产后抑郁是发生在分娩后第1个月甚至更长时间的情绪障碍,发病率在10%到20%之间,由于漏报或诊断不足,产后抑郁实际患病率可能更高,产后抑郁与重度抑郁症状类似,均表现出情绪低落、焦虑、内疚、幻觉、妄想等症状,与重度抑郁症不同的是增加了对母亲角色的担忧和恐惧^[8,9]。产后抑郁的病因复杂,目前研究认为与分娩后生殖激素迅速下降、睡眠质量差、失业、经济收入低、早产、新生儿先天缺陷、分娩后独自一人产生的压力以及缺乏家庭支持等有关^[10-12]。妊娠期高血压是妊娠高危并发症之一,可导致早产和产后出血,严重者可能危及母婴生命,与正常孕妇相比,妊娠期高血压患者的心理压力水平更高,更易患产后抑郁症^[13]。

本研究结果显示妊娠期高血压患者产后抑郁的发病率为21.15%,显著高于Liu等人^[14]报道的普通社区女性分娩后4周内6.7%的产后抑郁发生率,妊娠期高血压已被证实对产后抑郁症有直接的影响,杨波等人^[15]报道妊娠期高血压产后抑郁发生率为20%,与本研究结果接近。本研究回归分析结果显示新生儿疾病、分娩孕周<36周、产后血压控制差、无经济收入、受教育程度低是妊娠期高血压孕妇产后抑郁的危险因素,其中新生儿疾病的影响最大,新生儿若有出生缺陷,低出生体重,乃至窒息、肺炎或死亡等不良结局,对产妇心理可造成巨大的打击,严重影响其产后心理状态,易引起患者情绪崩溃。挪威一项队列研究显示,婴儿先天性心脏病与母亲产后抑郁的发生有关,且心脏病程度越重,母亲抑郁和焦虑程度越重^[16]。妊娠36周以前分娩属于早产,早产新生儿各个系统发育不完善,易并发骨代谢疾病、感染或败血症、坏死性小肠结肠炎等严重疾病,存活率低,且需要巨额的医疗支出,给家庭带来巨大的经济压力,增加孕产妇心理负担。早产新生儿出生体重偏低,低出生体重儿皮下脂肪少,保温能力差,呼吸机能和代谢机能弱,智力发育缓慢,容易感染疾病,并潜在成年后胰岛素抵抗、代谢综合征等风险^[17],现有研究显示低出生体重尤其是极低出生体重婴儿母亲患产后抑郁风险增加4~18倍^[18],一项研究显示早产影响母体心理状态以及与婴儿的互动^[19],较低的胎龄预示着母亲的抑郁症状水平较高^[20],早产被认为是孕产妇产后抑郁的主要危险因素之一^[21]。本研究结果显示产后血压控制较差的患者产后抑郁发生率高于血压控制良好者,尽管妊娠高血压症状在产后得到缓解,大多数产妇血压在产后45 d内可恢复正常,但是有高血压病史、妊娠期高血压病情较重、高龄或妊娠期情绪不佳者血压难以恢复^[22],会增加日后心血管疾病风险,与正常妊娠

史产妇相比,妊娠高血压产妇患心血管疾病的可能性要高出2~4倍^[23],因此这部分患者承受的心理压力大于正常孕产妇,易发生产后抑郁。本研究结果显示无经济收入孕产妇产后抑郁发生率较高,新生儿抚养对每个母亲和家庭来说都是一项较大的开支,无经济收入来源孕产妇面临这项突如其来的开支,心理压力不免增加,而产后需要照顾新生儿暂时丧失工作机会,无疑更增加心理负担,导致抑郁情绪的产生。Cleary等人^[24]报道指出与没有抑郁症的产妇相比,患有抑郁症的产妇失业率更高,人均家庭收入更低。本研究还得出,受教育程度较低者产后抑郁发生率较受教育程度较高者发生率更高,分析原因为个体受教育水平与社会经济地位有关,受教育程度越高获得的社会资源越多,经济能力也越高,对疾病的认知更为丰富,面临疾病时心理应对能力更好。日本一项研究也显示受教育水平较低是产后抑郁症的独立危险因素^[25]。本研究尚未发现产次与产后抑郁的关系,Guo等人^[26]的统计结果也显示一胎、二胎围产期抑郁症发生率分别为21.78%~24.87%和18.29%~22.15%,其间无统计学差异。

本研究结果显示妊娠高血压产后抑郁患者SF-36各维度评分均低于无产后抑郁患者,说明产后抑郁会影响患者生命质量。现有研究显示抑郁症患者情绪低落,体验愉快活动的能力下降,导致社交功能下降,且常伴有睡眠障碍、食欲下降和认知功能降低,影响日常工作和生活^[27],抑郁症患者的生命质量普遍较差^[28,29]。产后抑郁会导致产妇无法照顾自己、婴儿以及家庭,影响日常生活,引起生命质量严重下降^[30]。临床对于发生产后抑郁的妊娠高血压患者应给予高度关注,并提供专业心理辅导和治疗,鼓励家属陪伴,增加社会支持力度,缓解患者抑郁情绪,提高其生命质量。

综上,新生儿疾病、分娩孕周<36周、产后血压控制差、无经济收入、受教育程度低是妊娠期高血压患者产后抑郁的危险因素,产后抑郁明显降低了患者生命质量,临床应针对该部分高危人群进行心理干预,缓解患者抑郁症状,改善其生命质量。

参考文献(References)

- [1] Quintivano J, Manuck T, Meltzer-Brody S. Predictors of Postpartum Depression: A Comprehensive Review of the Last Decade of Evidence[J]. Clin Obstet Gynecol, 2018, 61(3): 591-603
- [2] Benschop L, Duvekot JJ, Roeters van Lennep JE. Future risk of cardiovascular disease risk factors and events in women after a hypertensive disorder of pregnancy[J]. Heart, 2019, 105(16): 1273-1278
- [3] Caropreso L, de Azevedo Cardoso T, Eltayebani M, et al. Preeclampsia as a risk factor for postpartum depression and psychosis: a systematic

- review and meta-analysis [J]. Arch Womens Ment Health, 2020, 23(4): 493-505
- [4] Koutra K, Vassilaki M, Georgiou V, et al. Pregnancy, perinatal and postpartum complications as determinants of postpartum depression: the Rhea mother-child cohort in Crete, Greece[J]. Epidemiol Psychiatr Sci, 2018, 27(3): 244-255
- [5] 中华医学会妇产科学分会妊娠期高血压疾病学组. 妊娠期高血压疾病诊治指南(2015)[J]. 中华妇产科杂志, 2015, 50(10): 721-728
- [6] Cox JL, Holden JM, Sagovsky R, et al. Detection of the Edinburgh Postnatal Depression Scale[J]. Br J Psychiatry, 1987, 150(6): 782-786
- [7] 李鲁, 王红妹, 沈毅. SF-36 健康调查量表中文版的研制及其性能测试[J]. 中华预防医学杂志, 2002, 36(2): 109-113
- [8] 蔺和宁, 张兴兵, 罗娟, 等. 孕产妇情绪评估及个性化干预对降低产后抑郁症的作用研究[J]. 现代生物医学进展, 2017, 17(5): 947-949
- [9] Wilkinson A, Anderson S, Wheeler SB. Screening for and Treating Postpartum Depression and Psychosis: A Cost-Effectiveness Analysis [J]. Matern Child Health J, 2017, 21(4): 903-914
- [10] Okun ML, Mancuso RA, Hobel CJ, et al. Poor sleep quality increases symptoms of depression and anxiety in postpartum women [J]. J Behav Med, 2018, 41(5): 703-710
- [11] Oztora S, Arslan A, Caylan A, et al. Postpartum depression and affecting factors in primary care [J]. Niger J Clin Pract, 2019, 22(1): 85-91
- [12] Schiller CE, Meltzer-Brody S, Rubinow DR. The role of reproductive hormones in postpartum depression [J]. CNS Spectr, 2015, 20(1): 48-59
- [13] Pan Y, Ni L, Fang S, et al. Effect of comprehensive care on the negative emotions and life quality in parturients with postpartum depression and gestational hypertension [J]. Am J Transl Res, 2021, 13(6): 7228-7234
- [14] Liu S, Yan Y, Gao X, et al. Risk factors for postpartum depression among Chinese women: path model analysis [J]. BMC Pregnancy Childbirth, 2017, 17(1): 133
- [15] 杨波, 王德佳, 冯雪莹. 妊娠期高血压疾病与产后抑郁的关系及其高风险因素分析[J]. 现代中西医结合杂志, 2014, 23(29): 3230-3232
- [16] Solberg Ø, Dale MT, Holmstrøm H, et al. Long-term symptoms of depression and anxiety in mothers of infants with congenital heart defects[J]. J Pediatr Psychol, 2011, 36(2): 179-187
- [17] Nakano Y. Adult-Onset Diseases in Low Birth Weight Infants: Association with Adipose Tissue Maldevelopment [J]. J Atheroscler Thromb, 2020, 27(5): 397-405
- [18] Helle N, Barkmann C, Bartz-Seel J, et al. Very low birth-weight as a risk factor for postpartum depression four to six weeks postbirth in mothers and fathers: Cross-sectional results from a controlled multi-centre cohort study[J]. J Affect Disord, 2015, 180(15): 154-161
- [19] Khemakhem R, Bourgou S, Selmi I, et al. Preterm birth, mother psychological state and mother-infant bonding [J]. Tunis Med, 2020, 98(12): 992-997
- [20] Barroso NE, Hartley CM, Bagner DM, et al. The effect of preterm birth on infant negative affect and maternal postpartum depressive symptoms: A preliminary examination in an underrepresented minority sample[J]. Infant Behav Dev, 2015, 39(5): 159-165
- [21] van der Zee-van den Berg AI, Boere-Boonekamp MM, Groothuis-Oudshoorn CGM, et al. Postpartum depression and anxiety: a community-based study on risk factors before, during and after pregnancy[J]. J Affect Disord, 2021, 286(1): 158-165
- [22] 王永霞, 赵敏. 妊娠期高血压疾病患者产后血压恢复的相关因素分析[J]. 中国医药, 2019, 14(5): 760-762
- [23] Stanhewicz AE. Residual vascular dysfunction in women with a history of preeclampsia [J]. Am J Physiol Regul Integr Comp Physiol, 2018, 315(6): R1062-R1071
- [24] Cleary S, Orangi S, Garman E, et al. Economic burden of maternal depression among women with a low income in Cape Town, South Africa[J]. BJPsych Open, 2020, 6(3): e36
- [25] Matsumura K, Hamazaki K, Tsuchida A, et al. Education level and risk of postpartum depression: results from the Japan Environment and Children's Study (JECS)[J]. BMC Psychiatry, 2019, 19(1): 419
- [26] Guo XJ, Chen J, Ren JH, et al. Comparisons on perinatal depression between the first-child women and the second-child women in West China under the universal 2-child policy: A STROBE compliant prospective cohort study [J]. Medicine (Baltimore), 2020, 99(23): e20641
- [27] Hofmann SG, Curtiss J, Carpenter JK, et al. Effect of treatments for depression on quality of life: a meta-analysis [J]. Cogn Behav Ther, 2017, 46(4): 265-286
- [28] Alencar SBV, de Lima FM, Dias LDA, et al. Depression and quality of life in older adults on hemodialysis [J]. Braz J Psychiatry, 2020, 42(2): 195-200
- [29] Ando H, Shen J, Morishige KI, et al. Association between postpartum depression and social support satisfaction levels at four months after childbirth[J]. Arch Psychiat Nurs, 2021, 35(4): 341-346
- [30] Sadat Z, Abedzadeh-Kalahroudi M, Kafaei Atrian M, et al. The Impact of Postpartum Depression on Quality of Life in Women After Child's Birth[J]. Iran Red Crescent Med J, 2014, 16(2): e14995