



Maternal Depression, Anxiety, and Stress After Stressful Life Events Occurred during Caring for Children with Congenital Adrenal Hyperplasia



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Integrating Neuroscience and Covid-19

Introduction

Congenital Adrenal Hyperplasia (CAH) is a genetic condition affecting cortisol biosynthesis. This can cause salt wasting crisis in the majority of cases, and atypical genital appearance in female babies.(1) Mothers of CAH children encountered stressful life events during caring for children with CAH.(2) This study aimed to identify depression, anxiety, and stress among mothers of children having CAH.

Methods

This cross-sectional study in the pediatric-endocrine clinic in Diponegoro National Hospital Semarang, was held in February-March 2020. Forty-four mothers of CAH children were interviewed using Depression, Anxiety, and Stress 42 (DASS-42), stressful life events, and demographic questionnaires during the study period. The data was analyzed accordingly using statistic software based on demographic variables (age, education, income, occupation) and stressful life events (CAH type, the presence of atypical genital, number of affected children, death of affected children, children's gender decision at birth, genitoplasty). All subjects signed informed consents and the study was approved by the FMDU Ethical Committee.

Fanti Saktini,¹ Witrie Sutaty,^{2,3} Alifiati Fitrikasari,² Agustini Utari^{4,5}

¹ Psychiatry Resident, Faculty of Medicine, Diponegoro University, Semarang

² Dept. of Psychiatry, Faculty of Medicine, Diponegoro University, Semarang

³ Dr. Amino Gondohutomo Regional Mental Hospital, Semarang

⁴ Dept. of Pediatric Medicine, Faculty of Medicine, Diponegoro University, Semarang

⁵ Diponegoro National Hospital, Semarang

Corresponding author : fantisaktini@gmail.com

Result

Table 1. Comparison of DASS-42 scores between mothers with and without depression, anxiety, and stress

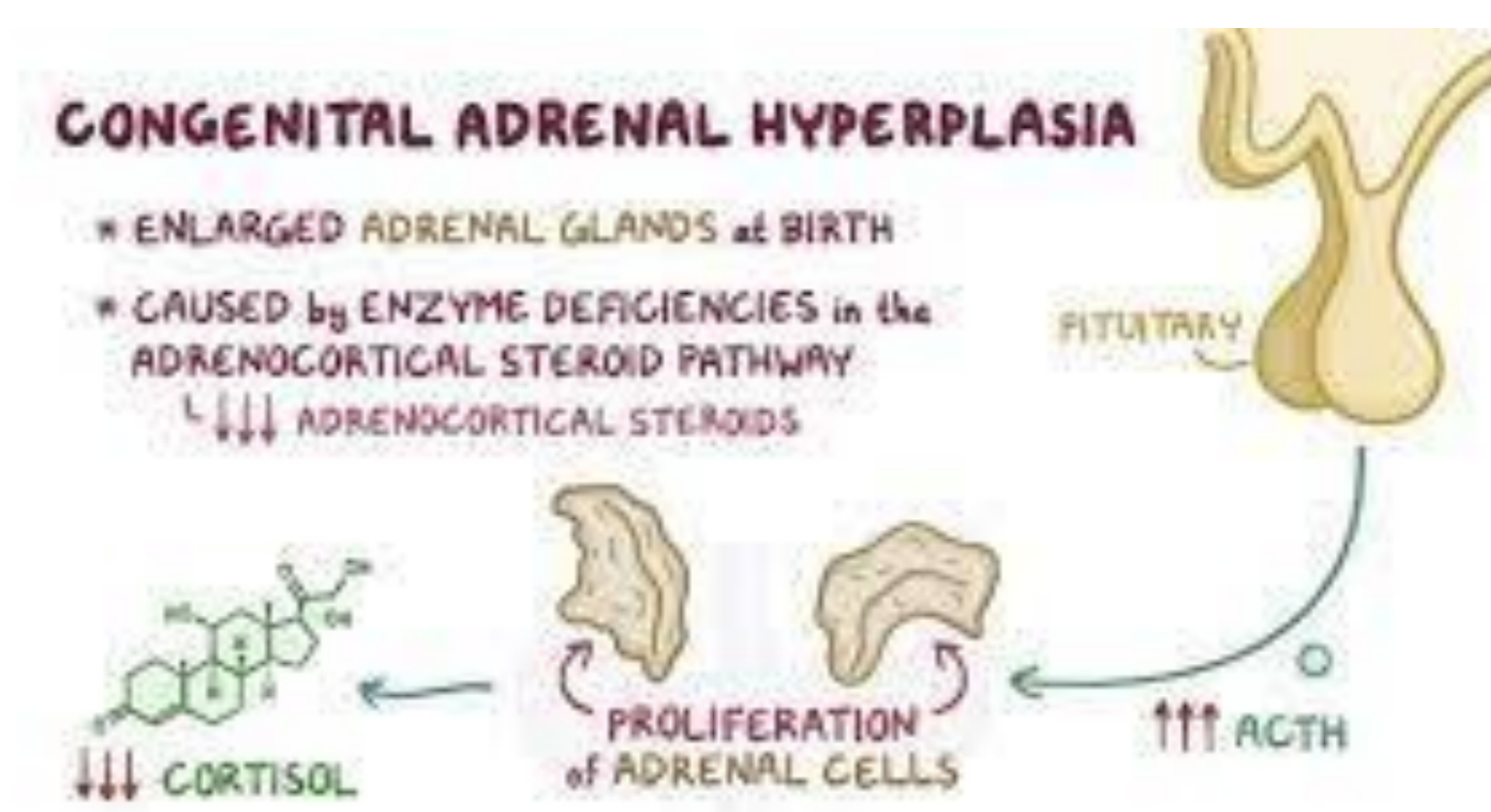
	n	DEPRESSION SCORE		ANXIETY SCORE		STRESS SCORE	
		Median (Min-Max)	p	Median (Min-Max)	p	Median (Min-Max)	p
Depression^a			0,00*		0,00*		0,00*
Yes	10	15,5 (10-30)		17 (8-27)		18,5 (5-34)	
No.	34	4 (0-9)		5 (1-14)		8 (0-22)	
Anxiety^a			0,00*		0,00*		0,00*
Yes	21	9 (0-30)		11 (8-27)		13 (5-34)	
No	23	3 (0-9)		4 (1-6)		6 (0-14)	
Stress^a			0,00*		0,00*		0,00*
Yes	36	17 (0-30)		19 (11-27)		22 (15-34)	
No	8	4,5 (0-14)		5,5 (1-13)		8 (0-14)	

^a Mann-Whitney ^b Kruskal-Wallis *significant (p < 0,01)

Table 2. Comparison of depression, anxiety, and stress between demographic characteristics and stressful life events categories

	DEPRESSION ^A				ANXIETY				STRESS			
	Yes n (%)	No n (%)	Total n (%)	P	Yes n (%)	No n (%)	Total n (%)	p	Yes n (%)	No n (%)	Total n (%)	p
Age group				0,402 ^b				0,462 ^b				0,329 ^b
18 – 40 years old	28	7	35		17	18	35		30	5	35	
> 40 years old	6	3	9		6	3	9		6	3	9	
Completion of education				0,237 ^b				0,194 ^e				1,00 ^b
≤ Highschool	22	9	31		14	17	31		25	6	31	
> College	12	1	13		9	4	13		11	2	13	
Occupation				0,613 ^e				0,058 ^e				0,280 ^e
Housewife	22	8	30		12	18	30		23	7	30	
Employee	8	1	9		7	2	9		9	0	9	
Entrepreneur	4	1	5		4	1	5		4	1	5	
Income				1,00 ^b				0,169 ^e				0,656 ^b
< IDR 2.000.000	25	8	33		15	18	33		26	7	33	
> IDR 2.000.000	9	2	11		8	3	11		10	1	11	
Child CAH type				0,177 ^b				0,416 ^b				0,318 ^b
Salt-wasting	27	10	37		18	19	37		29	8	37	
Simple virilization	7	0	7		5	2	7		7	0	7	
Child's atypical genital				1,00 ^b				0,892 ^e				0,676 ^b
Yes	24	7	31		16	15	31		26	5	31	
No	10	3	13		7	6	13		10	3	13	
Number of CAH Children				1,00 ^b				0,892 ^e				0,676 ^b
More than one	10	3	13		7	6	13		10	3	13	
One	24	7	31		16	15	31		26	5	31	
Died CAH Children				0,671 ^b				1,00 ^b				0,355 ^b
Yes	7	3	10		5	5	10		7	3	10	
No	27	7	34		18	16	34		29	5	34	
CAH Child's gender at birth				0,702 ^b				0,622 ^e				1,00 ^b
Undecided	10	2	12		7	5	12		10	2	12	
Decided (male/female)	24	8	32		16	16	32		26	6	32	
CAH Child underwent genitoplasty				1,00 ^b				1,00 ^b				1,00 ^b
Yes	5	1	6		3	3	6		5	1	6	
No	29	9	38		20	18	38		31	7	38	

^aCut off 9 ^bCut off 7 ^cCut off 14 ^dFisher exact test ^eChi-square



Conclusion

The DASS-42 scores were significantly different among mothers with and without depression, anxiety, and stress. The existence of depression, anxiety and stress were comparable between demo-graphic and stressful life events categories

Acknowledgement

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Keywords

Maternal, anxiety, depression, stress, congenital adrenal hyperplasia, stressful life events.

References

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