

MEASURING THE ANXIETY LEVEL IN GIRL WITH PUBERTE PRECOX AND THE EMOTIONAL REACTION OF THEIR FAMILIES

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Puberty Precox



- Appearance of secondary sex characteristics in girls before the age of 8
- The most common cause is the activation of the idiopathic central hypothalamo-pituitary-gonadal axis.

Why Do We Treat?

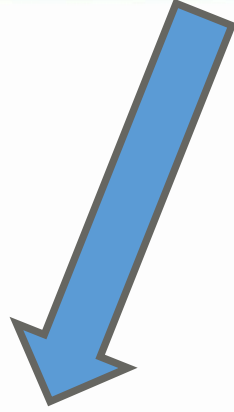


■ Adult size potential

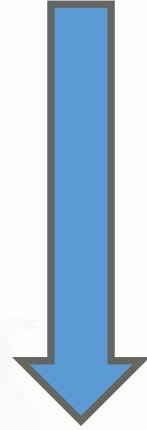


■ Psychosocial Effects

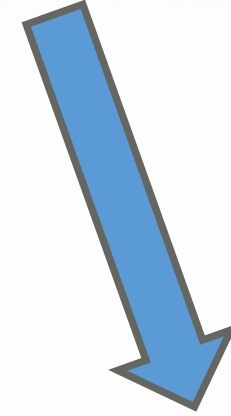
Who Are We Treating?



<6 Age



6-8 Age



8-10 Age

Use of Gonadotropin-Releasing Hormone Analogs in Children: Update by an International Consortium

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GnRH Analogs



- It replaces GnRH and suppresses puberty.
- Children have to receive this treatment until the age of 11-12.

BVÜ

GnRH Analogs



- It increases the height potential of children under 6 years old.
- No appreciable effect on increasing the height potential of children older than 7 years.
- It is recommended to control the puberty progression rate in 3-4 month periods in children who come after the age of 7 years.
- The majority of children with precocious puberty after the age of 7 have menarche after the age of 10.

Why Do We Treat?



- Adult size potential



- Psychosocial Effects

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One-Year Follow-Up of Girls with Precocious Puberty and Their Mothers: Do Psychological Assessments Change over Time or with Treatment?

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Managing precocious puberty: A necessity for psychiatric

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DE GRUYTER

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Review

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Review and evaluation of patient-centered psychosocial assessments for children with central precocious puberty or early puberty

Psychosocial Effects



- There are not enough studies on whether GnRH analogues solve the psychological problems related to precocious puberty in girls with Central Puberty Precox, and how much the children are aware of the situation.
- However, parental anxiety and its psychological effects on children have been used as initiation criteria for GnRH_a for many years.

Aim



- The aim of this study is to measure the anxiety levels of girls and their families, whose breast development started before the age of 8 or menarche before the age of 10, and to examine the psychosocial necessity of their treatment.

Method



- Patients with a pre-diagnosis of Early Adolescence were selected and the study group was formed. Therefore, female patients who applied to the pediatric endocrinology outpatient clinic with breast development before the age of 8 or menarche before the age of 10 were included in the study.
- Our study included 72 families, 36 of whom were patients and 36 were control groups.

Exclusion Criteria



- Men.
- Those who do not speak Turkish.
- Those with a known psychiatric illness.
- Those with another chronic disease.
- Those who have started treatment for this disease.

Scales



- Child Anxiety Depression Scale-Revised-Parent Scale (ÇADÖ-Y-E)
- State-Trait Anxiety Scale
- Parents were asked to fill in the CADO-Y-E form for their children and the State-Trait Anxiety Scale for themselves.

The Revised Child Anxiety and Depression



Scale - Parent Version Score

- CADÖ-Y-E, developed by Chorpita et al., based on DSM-IV diagnostic criteria to evaluate depression and anxiety in children and adolescents, consists of 47 items. In the ÇADÖ-Y-E Parent Scale, which is a 4-point Likert-type scale, parents are asked to fill in items (never=0, sometimes=1, often=2, always=3) including the frequency of anxiety and depression-related symptoms and behaviors in their child. It includes 6 subscales: separation anxiety, general anxiety, panic, social phobia, obsession/compulsion, and depression, as well as total anxiety (total of five anxiety subscales) and total anxiety-depression (general sum of all subscales).
- Its Turkish adaptation, validity and reliability study was carried out by Görmez et al. in 2017.

State-Trait Anxiety Scale



- It is a self-assessment questionnaire consisting of short statements. It was adapted into Turkish by Öner and Le Compte. The reason for this is that the State Anxiety Inventory has the feature of describing how the individual feels at a certain moment and under certain conditions and responding by taking into account his feelings about the situation he is in.

Method



- Taking the previous studies as a reference, the difference between the means for 80% power at 95% confidence level was taken as 5.38 units and the standard deviation as 2.21, and the minimum sample number was calculated as $n_1=n_2=36$, totaling 72. Data will be analyzed using SPSS (Statistical Program for Social Sciences).

Result



This study included 36 patients and 36 controls. The mean age of the patient group was 8.06. Patient's mean BMI z-score was 0.84 and the range was (-1.80)-(+2.45). Fourteen of thirty-six patients diagnosed with CPP were true CPP. The mean age of the control group was 7,83. The parenteral state anxiety and Trait anxiety between patients and control group was statistically insignificant. Social phobia, panic disorder, separation anxiety, generalized anxiety, obsessive compulsive disorder and major depression levels were statistically insignificant among children. There was no significant difference between total anxiety scores.

- Student T test was used while calculating statistics.

Parents

Group		N	Mean	Std. Deviation	Std. Error Mean	Significance
Parent Trait Anxiety	Suspect CPP	36	41,6111	8,80674	1,46779	0,997
	Control	36	45,0278	8,39213	1,39869	
Parent State Anxiety	Suspect CPP	36	39,5556	10,06960	1,67827	0,438
	Control	36	39,8056	8,27671	1,37945	

Child		N	Mean	Std. Deviation	Std. Error Mean	Significance
Age	Suspect CPP	36	8,0589	1,22519	0,20420	0,669
	Control	36	7,8333	1,10841	0,18473	
total anxiety score	Suspect CPP	36	24,7778	13,20197	2,20033	0,891
	Control	36	25,6389	11,55892	1,92649	
Major Depression	Suspect CPP	36	5,0278	4,77186	0,79531	0,782
	Control	36	6,6111	4,41606	0,73601	
Obsessive compulsive disorder	Suspect CPP	36	3,3611	2,49746	0,41624	0,787
	Control	36	3,2778	2,83459	0,47243	
generalized anxiety disorder	Suspect CPP	36	4,7500	2,63357	0,43893	0,773
	Control	36	5,0278	2,50127	0,41688	
Separation anxiety Disorder	Suspect CPP	36	5,3611	3,92175	0,65363	0,517
	Control	36	6,5278	3,13037	0,52173	
Panic Disorder	Suspect CPP	36	3,3889	3,02634	0,50439	0,912
	Control	36	3,0278	2,87339	0,47890	
Social Phobia	Suspect CPP	36	7,9167	4,47453	0,74576	0,100
	Control	36	7,7778	5,25961	0,87660	

Conclusion



It's known that after the age of 8 GnRha have minimal effect on final height. This study shows that psychological distress levels are also similar to the control group. Children may not need to start on medication for psychological reasons. This study provides a dataset for future studies measuring stress levels after taking GnRHa.

References



1. Schoelwer, M. J., Donahue, K. L., Didrick, P., & Eugster, E. A. (2017). One-Year Follow-Up of Girls with Precocious Puberty and Their Mothers: Do Psychological Assessments Change over Time or with Treatment?. *Hormone research in paediatrics*, 88(5), 347–353. <https://doi.org/10.1159/000479688>
2. Williams, V., Soliman, A. M., Barrett, A. M., & Klein, K. O. (2018). Review and evaluation of patient-centered psychosocial assessments for children with central precocious puberty or early puberty. *Journal of pediatric endocrinology & metabolism : JPEM*, 31(5), 485–495. <https://doi.org/10.1515/jpem-2017-0465>
3. Temelturk, R. D., Ilcioglu Ekici, G., Beberoglu, M., Siklar, Z., & Kilic, B. G. (2021). Managing precocious puberty: A necessity for psychiatric evaluation. *Asian journal of psychiatry*, 58, 102617. <https://doi.org/10.1016/j.ajp.2021.102617>
4. Bangalore Krishna, K., Fuqua, J. S., Rogol, A. D., Klein, K. O., Popovic, J., Houk, C. P., Charmandari, E., Lee, P. A., Freire, A. V., Ropelato, M. G., Yazid Jalaludin, M., Mbogo, J., Kanaka-Gantenbein, C., Luo, X., Eugster, E. A., Klein, K. O., Vogiatzi, M. G., Reifschneider, K., Bamba, V., Garcia Rudaz, C., ... Medina Bravo, P. G. (2019). Use of Gonadotropin-Releasing Hormone Analogs in Children: Update by an International Consortium. *Hormone research in paediatrics*, 91(6), 357–372. <https://doi.org/10.1159/000501336>

References



5. Chorpita BF, Moffitt CE, Gray J. Psychometric properties of the Revised Child Anxiety and Depression Scale in a clinical sample. *Behaviour Research and Therapy*, 2005; 43 (3): 309-322.
6. Gormez V, Kilincaslan A, Ebesutani C, Orençül AC, Kaya I, Ceri V, Nasiroglu S, Filiz M, Chorpita BF. Psychometric Properties of the parent Version of the Revised Child Anxiety and Depression Scale in a Clinical Sample of Turkish Children and Adolescents. *Child Psychiatry & Human Development*, 2017; 48 (6): 922-933.
7. Sarıcaođlu F, Akıncı S. B, Gözaçan A, Güner B, Rezaki M, Aypar Ü (2005). Gece ve gündüz vardiya çalıřmasının bir grup anestezi asistanının dikkat ve anksiyete düzeyleri üzerine etkisi. *Türk Psikiyatri Dergisi*, 16(2), 106 - 112.
8. Ayře BA, Muhammed A, Neře PF, Ayřeğül SG. Anxiety Level, Maternal Attachment Style and Family Functioning in Adolescents Somatoform Disorders. *J Clin Psy*. 2012; 15(2): 121-128

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