

## Hormonal parameters in pubertal gynecomastia

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### Introduction

Gynecomastia is a benign proliferation of the mammary gland in males which might be unilateral or bilateral. It has been thought that the development of gynecomastia is due to the imbalance of between estrogens and androgens. The aim of this study was to define the auxologic features of children with pubertal gynecomastia and to investigate possible hormonal factors that may lead to development of gynecomastia.

### Material and Methods

This study is performed on 45 boys with gynecomastia and 45 control boys who are between 9-17 years old.

### Results

Mean age of the study group was 13,2+1.8 years. Body mass index was found to be significantly higher in the study group ( $p<0.01$ ). In cases with gynecomastia, total testosterone, estradiol, estradiol/testosterone rates, and FAI levels were higher ( $p<0.001$ ). DHEA-S levels were higher but not statistically significant ( $p>0.05$ ). Sex hormone binding globulin levels were similar ( $p>0.05$ ). DHEA-S/testosterone ratio and DHEA-S/estradiol ratio were decreased in group with gynecomastia ( $p<0.001$ ).

### Discussion

Our study showed that the imbalance between DHEA-S and testosterone levels, and also DHEA-S and estradiol levels as well as testosterone and estradiol levels may have a role in the development of pubertal gynecomastia.