GYNAECOMASTIA IN YOUNG MALES: RELATIONSHIP WITH SOMATOMETRIC PARAMETERS

Ramadan A Saleh, Ashok Agarwal, Rupesh Raina, Cleveland Clinic Foundation, Stanislav Hubaveshki, Analia Tomova, Philip Kumanov, Clinical Center of Endocrinology, Medical University

Objective: Hyperplasia of male breast tissue to the point of clinically recognizable enlargement, i.e. gynaecomastia, is a common finding during puberty. Gynaecomastia is a transient phenomenon which results from a not clearly identified hormonal imbalance. The relationship between gynaecomastia and body measurements is not clear. In this study, we investigated the relationship of gynaecomastia with somatometric parameters in 540 young males.

Design: A population-based study.

Materials/Methods: Our study included 540 healthy boys between the age of 11 to 19 years. The subjects were randomly selected from all socioeconomic classes and districts in Sofia, the capital of Bulgaria. The same investigator (P.K.) examined all boys. Physical examination included body weight (in kg) and height (in cm). The presence of gynaecomastia was defined as a palpable discrete button of firm subareolar breast tissue at least 2 cm in diameter. Pubic hair distribution was rated in six stages using Tanner staging.

Results: Twenty-three out of 540 (4.3%) boys had gynaecomastia. Gynaecomastia was unilateral in 7/23 (30%) and bilateral in 16/23 (70%). The median (25th & 75th percentiles) age of boys with gynaecomastia was 13 (12, 14) and boys without gynaecomastia was 15 (13, 17) (P = 0.001). Using logistic regression analysis, gynaecomastia was significantly correlated with pubic hair (odds ratio = 3.72 at 95% confidence interval, P <0.0001) after adjusting for other variables among boys with gynaecomastia. The correlation of gynaecomastia with body weight and height was not significant.

Conclusions: Our study indicates that gynaecomastia of puberty has a peak incidence in the age group of 12 to 14 years. The strong correlation of gynaecomastia with pubic hair may support the hormonal theory for the pathogenesis of gynaecomastia.

Supported by: None