

# Constitutional delay of puberty in boys: clinical and hormonal characteristics of patients

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## OBJECTIVES

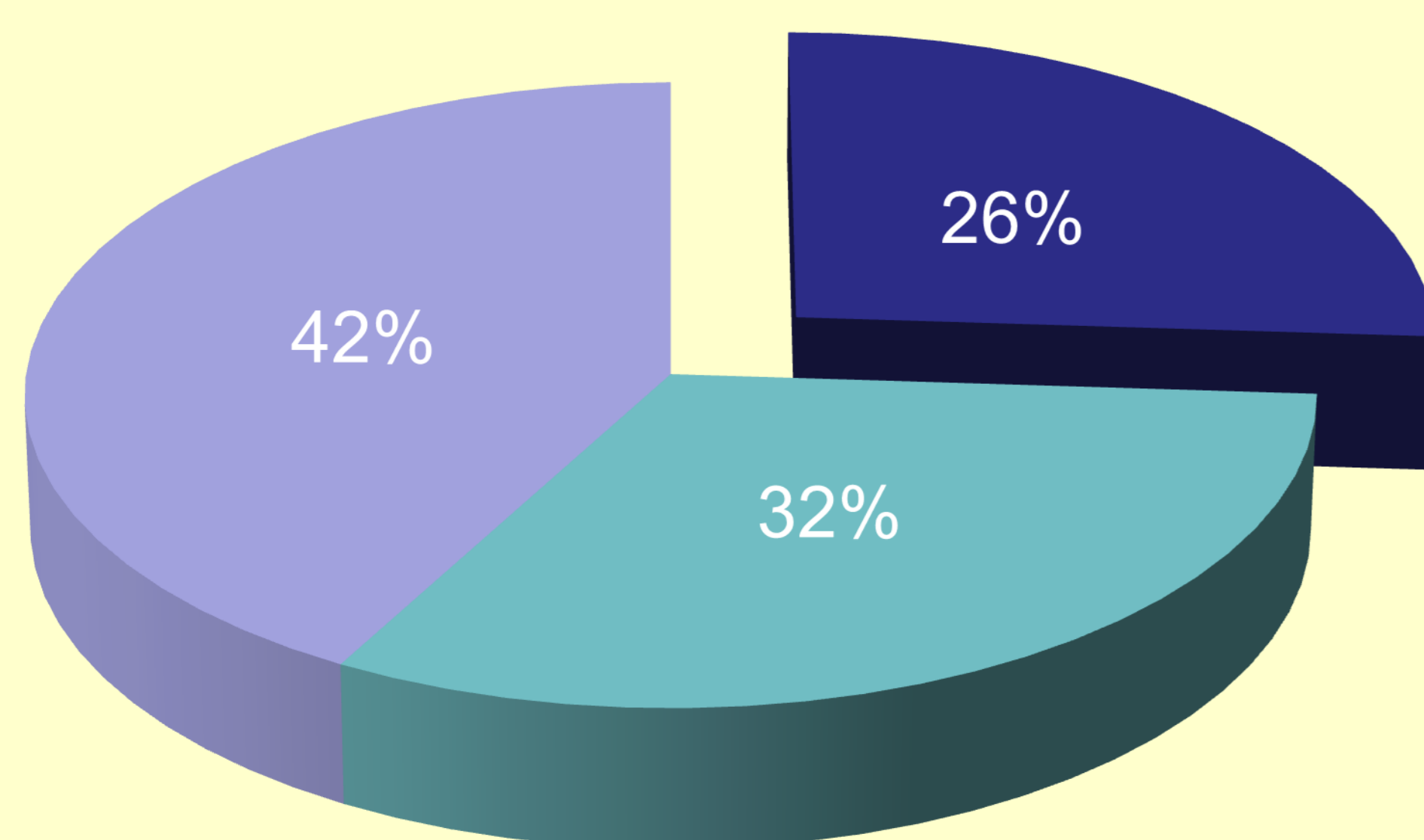
The objective is to examine anthropometric, hormonal characteristics and their relationship in boys with constitutional delayed puberty (CDP).

## METHODS

The study included 47 boys older 13,2 year old with CDP. We evaluated anthropometric indicators, bone age and hormonal status.

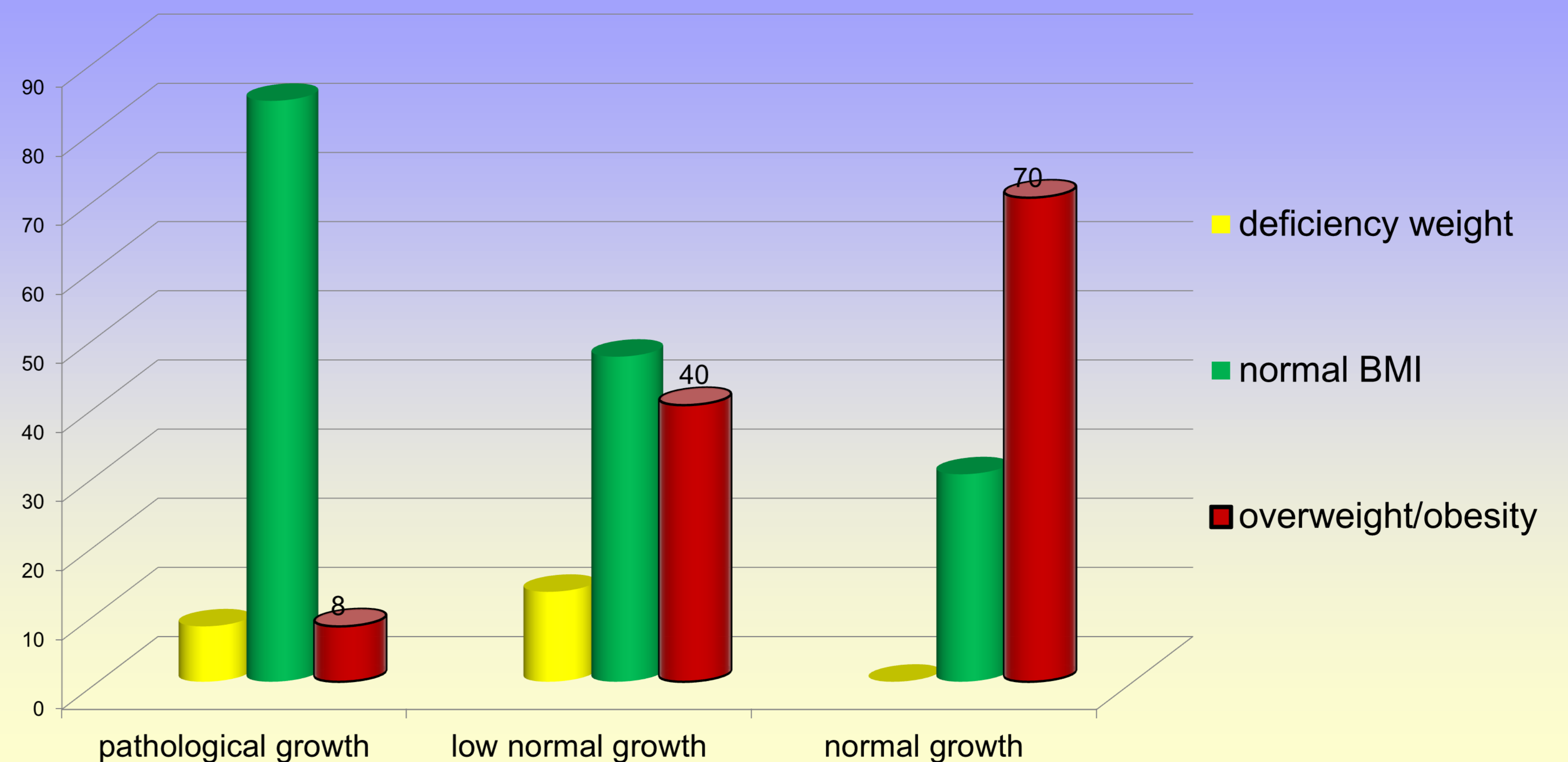
## RESULTS

The patients with CDP were divided into 3 groups depending on growth.

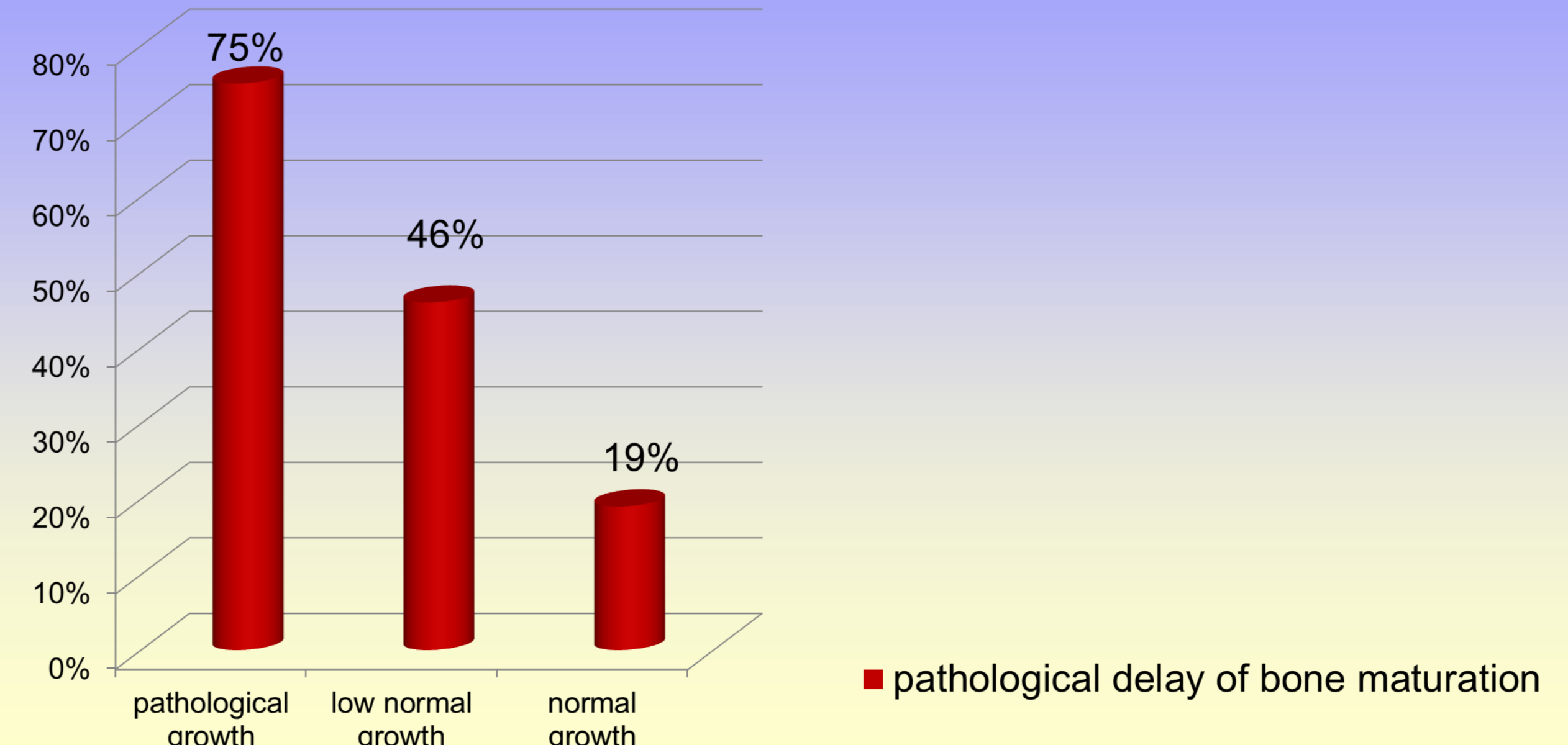


- pathological growth (Ht-SDS $\leq$ -2)
- low normal growth (-2<Ht-SDS $\leq$ -1)
- normal growth (Ht-SDS>-1)

Overweight/obesity were encountered significantly more frequently in boys with normal growth (p=0,04) than with pathology growth.



The delay of bone maturation in patients with normal growth encountered less frequently than in patients with pathological growth (p=0,07).



The hormonal characteristics do not differ in boys with the pathological and normal growth, such as inhibin B, AMH, LH, FSH, estradiol, cortisol, prolactin, IGF-1, insulin. But in boys with normal growth, testosterone was lower (Me 1,2 vs 5,7 nmol/l, p=0,01), DHEAS was higher (6,1 $\pm$ 2,5 vs 2,3 $\pm$ 0,8 mcmol/l, p= 0,012).

## CONCLUSIONS

The CDP in boys is heterogeneous and only in half the cases is accompanied by growth retardation. In boys with normal growth, constitutional delay of puberty is associated with overweight/obesity, with a mean value of bone maturation, higher levels of DHEAS and lower levels of testosterone.

## CONTACT INFORMATION

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