The activation of the GnRH pulse generator before the age of 8 years in girls and 9 years in boys results in central precocious puberty (CPP). The majority of cases of CPP in girls are defined as idiopathic since no organic lesion is found, whereas intracranial lesions are common in boys with CPP. Previous studies have shown that the height of the pituitary gland in the CPP cases is higher than in the normal children.

**RESULTS**

The mean chronological age at diagnosis was 7.1±1.0 (2.4-7.9) years in girls and 7.4±1.7 (3.7-8.8) years in boys.

Both genders median puberty stage was determined as Tanner stage 2 (2-3)

CNS imaging showed pathological findings in 17% (7/41) of the girl cases, and 55.5% (5/9) of the boy cases.

While there was no difference between girl patients with normal and abnormal MRI in terms of age at diagnosis, height-SDS and BMI-SDS, it was found that bone age and bone age/chronological age ratio was higher in the group with abnormal MRI. No difference was found between the two groups in terms of estradiol levels, however, basal LH and FSH levels were higher in girls with abnormal MRI.

There was no statistical difference between male cases with normal MRI and abnormal MRI in terms of auxological and laboratory parameters.

Pituitary volumes of girls aged 6-7.9 years and boys aged 8-8.9 years were found to be increased compared to the control group.

**CONCLUSIONS**

In this study, we found that CNS imaging showed pathological findings in 17% of the girl cases, and 55.5% of the boy cases.

Pituitary volumes of girls aged 6-7.9 years and boys aged 8-8.9 years were found to be increased compared to the control group.