

CENTRAL PRECOCIOUS PUBERTY: CLINICAL, ETIOLOGIC AND THERAPEUTIC FEATURES

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INTRODUCTION

Precocious puberty is defined by the apparition of secondary sexual features before the age of 8 years in girls and 9.5 years in boys.

Central precocious puberty (CPP) results from a premature activation of the hypothalamic-pituitary-gonadal axis.

AIM

The aim of this study was to review the clinical, etiologic and therapeutic features of this entity.

METHOD

It is a descriptive retrospective study including 7 patients with central precocious puberty followed-up in the department of Endocrinology-Diabetology and Nutrition of Mohammed VI University Hospital Center, Oujda, in the eastern of Morocco.

We collected clinical, biological, etiologic and therapeutic data that was analyzed using SPSS software version 21.

RESULTS

We have collected 7 patients, 6 girls and one boy. The mean age at admission was 7.4 years ranging from 3.7 to 9 years.

The major symptom leading parents to consultation was breast development in girls and testis development in the boy. Pubic hair development was noted in 57.1% of cases. Four patients (57.1%) had an advanced height. An advanced bone age was found in 5 cases (71.4%).

The diagnosis of central precocious puberty was confirmed using gonadotropin-releasing hormone (GnRH) stimulation test. The mean peak luteinizing hormone (LH) concentration was 27.9 mUI/ml with a maximal peak of 71.8 mUI/ml. Pituitary magnetic resonance imaging was abnormal in 2 cases (28.6%) including a case of hypothalamic hamartoma and a case of pituitary picoadenoma.

Six patients were treated using GnRH agonists at a dose of 3.75mg of Triptorelin with a mean interval of 26.16 days between injections.

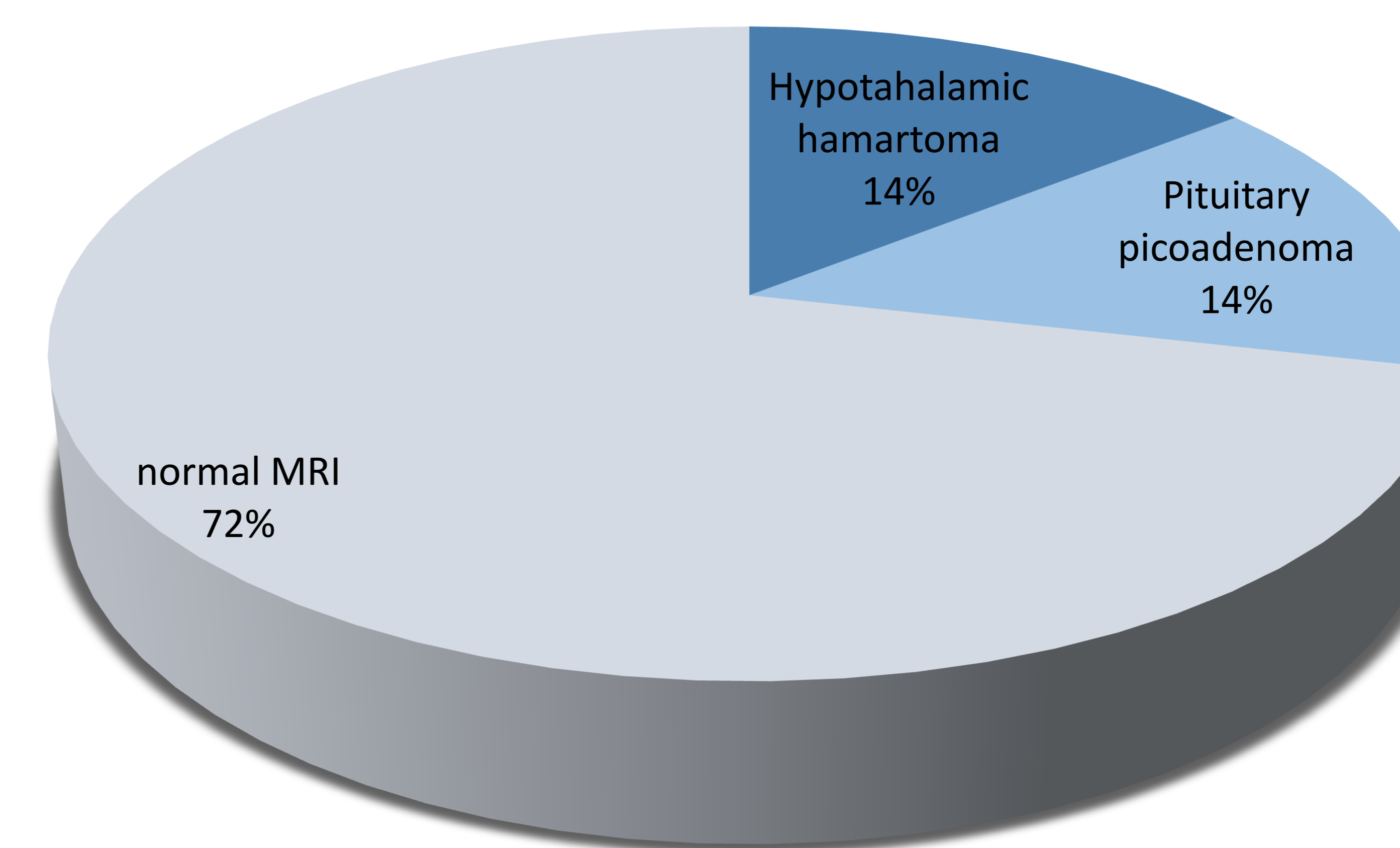


Figure : MRI outcomes

CONCLUSIONS

Central precocious puberty is a rare disease with a clear feminine predominance such as the results found in our study.

CPP is usually idiopathic in girls; while it is more likely pathological in boys [1].

GnRH agonists act by maintaining high concentrations of GnRH resulting in paradoxical downregulation and subsequent suppression of the hypothalamic-pituitary gonadal axis [2].

Its diagnosis should be made as soon as possible in order to decide upon the utility of GnRH agonists with the aim of preventing short adult stature and adverse psychosocial outcomes.

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