INTRODUCTION

Central precocious puberty (CPP) results from premature activation of hypothalamic-pituitary-gonadal axis. GnRH stimulates the development of secondary sexual features, rapid bone maturation and growth. GnRH agonists (GnRHa) represent the gold-standard therapy in children with CPP. Several pharmacological formulations of GnRHa, such as buserelin, histrelin, leuprolin, triptorelin and goserelin, are available and used clinically. The treatment is generally safe and well tolerated. However, several studies reported side effects, including bruising, pain, injection reactions and sterile abscesses. Furthermore, flushes, headaches, and nausea were observed and are classified as minor menopausal-like side effects.

The aim of our study was to identify which side effects were featured in CPP patients enrolled in this study.

METHODS

Our retrospective study carried out from 2018 to 2020. The enrolled patients were treated with leuprolide (46 patients) or triptorelin (39 patients) and minor menopausal-like side effects appearance during therapy was investigated. Moreover, clinical parameters and radiological changes were monitored to evaluate the possible relationship between GnRHa treatment and side effects appearance.

RESULTS

- N=65 patients enrolled (median age 7.35 ± 0.67);
- N=40 symptomatic patients;
- N=23 patients treated with leuprolide and N=17 patients with triptorelin reported symptoms (p=0.043);
- The patients treated with triptorelin showed mainly headache (N=13);
- The patients treated with leuprolide showed mainly increased appetite (N=8) and mood swing (N=6);
- The bone age was significantly lower in symptomatic patients (p=0,004) than in those asymptomatic;
- No significant differences were observed between symptomatic and asymptomatic patients in chronological age (p=0.16), weight (p=0.20) and height (p=0.20) before treatment;
- Symptomatic patients showed a higher ovarian volume and breast growth (BG) than that observed in asymptomatic female (p=0.005);
- No significant differences were detected in peak-stimulated or basal LH, FSH and somatomedin C levels between the two groups of patients.

CONCLUSIONS

Our results suggest the need of implementing pharmacovigilance activity in pediatric patients treated with GnRH agonists in order to optimize and personalize the treatment.

REFERENCES


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