

Steril Abscess Formation with Two Different GnRH Analogues: Three Case Reports

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INTRODUCTION

Gonadotropin releasing hormone analogs (GnRHa) have been used safely for many years in the treatment of central precocious puberty (CPP) (1). Although rare; pain, swelling, erythema at the injection site are known local side effects in patients receiving GnRHa treatment and are temporary (2). Sterile abscess (SA) development is also one of the rare local side effects.

AIM

Besides local reactions, treatment ineffectiveness is the main problem in these cases. Here, three patients who developed sterile abscess during triptorelin (TA) and leuprolide acetate (LA) treatments will be presented in terms of difficulties in treatment and follow-up plan.

METHOD

The patients who were followed up with central precocious puberty between 2018 and 2020 in the Pediatric Endocrine Clinic of our hospital were evaluated.

Three (1.07 %) of the 278 patients receiving TA or LA had sterile abscess.

CASE PRESENTATION

In three girls who were followed up with a diagnosis of precocious puberty/progressive puberty at 6^{5/12}-year-old, 7^{2/12}-year-old, 8^{7/12}-year-old, it was observed that sterile abscess developed respectively in 4., 12. and 5. doses of GnRHa treatment. In the first case, sterile abscess recurred despite the treatment was switched to the another preparation. In the other two cases, we could not try the alternative preparation because at that time there have been interruptions in medication supply. We had to be followed up without treatment in three of our cases.

None of the cases had a known allergy history. The characteristics of three cases, initiation of treatment, the development process of sterile abscess and their subsequent management are given below. Anthropometric and laboratory data of the cases are presented in Table 1.

CONCLUSIONS

Although SA is a rare side effect, it is very important as it causes patients to be left untreated. In these cases, the active substance of the drug accumulates in the localization of sterile abscess and cannot be absorbed, so it cannot enter the systemic circulation. Therefore, puberty cannot be suppressed. Also, often leaving a scar is annoying for patients and their families.

We recommend that the injection site must be checked all patients. If SA develops, we recommend discontinuing the treatment and not insisting on treatment.

Table-1: Anthropometric and laboratory data of the cases

Cases	1	2	3
Age (years)	6 ^{5/12}	7 ^{2/12}	8 ^{7/12}
Complaint	Pubic hair	Breast development	Breast development
BMI (kg/m ²)/SDS	18.85 (1.48)	20.13 (1.73)	20.7 (1.58)
Breast&Pubic hair stage (Tanner)	III&III	III&I	III&III
Bone Age (years)	11	8 ^{10/12}	11
Mother'/Father' height (cm)	Not available (adopted)	149/170.6	160/171
Basal LH&FSH (mIU/L)	0.1&2	<0.07&2.41	9.41&7.79
E2 (pg/ml)	<12.1	12.9	45.7
Peak LH&FSH after LHRH stimulation	24.2&17.57	9.27&14.6	-
Standard dose ACTH stimulation	Peak cortisol 10 µg/dl Peak 17OHP 42.2 ng/ml		
Pelvic Ultrasound	Pubertal	Pubertal	Pubertal
Tryptase (µg/l) (N:<11.4 ng/ml)	-	38.6	3.98
Diagnosis	CAH+CPP	CPP	CPP
Treatment	Hydrocortizone+LA	LA	LA
Which drug causes sterile abscess	LA and TA	LA	LA
The last drug doses	7.5 mg/28 days	3.75 mg/28 days	7.5 mg/28 days
The timing of sterile abscess	4. dose	12. dose	5. dose
Injection site change	Scar	Scar	Scar

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