TEXT

Male Patients Benefit from Initial Exenatide Treatment: A Real-World Experience

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OBJECTIVES

The purpose of this study was to describe the outcome after initiation of exenatide therapy and to determine whether the impact of adverse drug reactions on compliance was affected by gender.

METHODS

A retrospective study was performed of 18 diabetic patients (8 males) that were prescribed exenatide between June 2013 and September 2014. Each included patient received exenatide for ≥1 month. Age, disease course, race, body mass index, medical history, chronic complications associated with diabetes, and the state of pretreatment glycemic control were analyzed. Both 1 and 4 weeks after treatment, data such as blood glucose, blood lipids, and body weight were collected to determine any adverse drug reactions and the impact of gender on exenatide withdrawal.

Table 1 Demographic and clinical characteristics of the study group

Characteristics	Mean (SD) or percentage or N(n=18)
Age (years), mean (SD)	42.6(8.3)
Sex: Male/Female (n)	8/10
Ethnicity(n)	
Chinese	18
Smoking status (n)	
Never smoker	15
Former smoker	0
Current smoker	3
Alcohol consumption (n)	
No	18
Yes	0
Duration of diabetes, years (mean ± SD)	8.3(5.4)
Comorbidity and PH (n)	
Gastroparesis	0
Digestive diseases	2
Hypertension	5
Physical activity(MET 150min/week)*	6
Sleep Quality(n)	
Good	11
Poor	7
Lifestyle(n)	
Busy	9
Leisure	9
Type of diabetes(n)	
Type 1	0
Type 2	18
BMI (kg/m^2)	27.3(3.8)
Type of glucose-lowering medications	
frequent GI adverse effect (incl Metformine,AGI)	16
less GI adverse effect(incl sulfonylureas,TZD,DPP-Ⅳ,insulin)	14
Laboratory diagnoses at baseline	
Fasting plasma glucose, mmol/L	8.9(2.6)
2-hour postprandial plasma glucose, mmol/L	11.8(3.1)
Hemoglobin A1c,%	8.1(1.1)

* standard from 2010 CHINA GUIDELINE FOR TYPE 2 DIABETES

Figure 1 ADR of Exenatide in male and female study groups from difference time

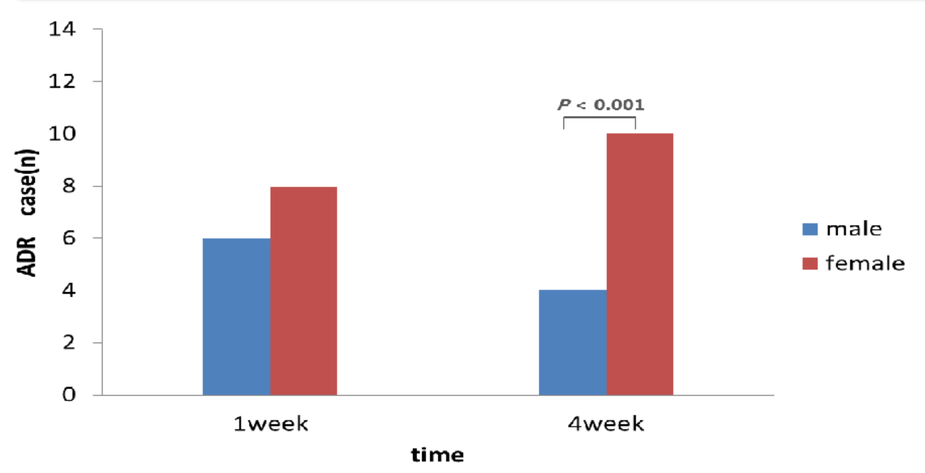
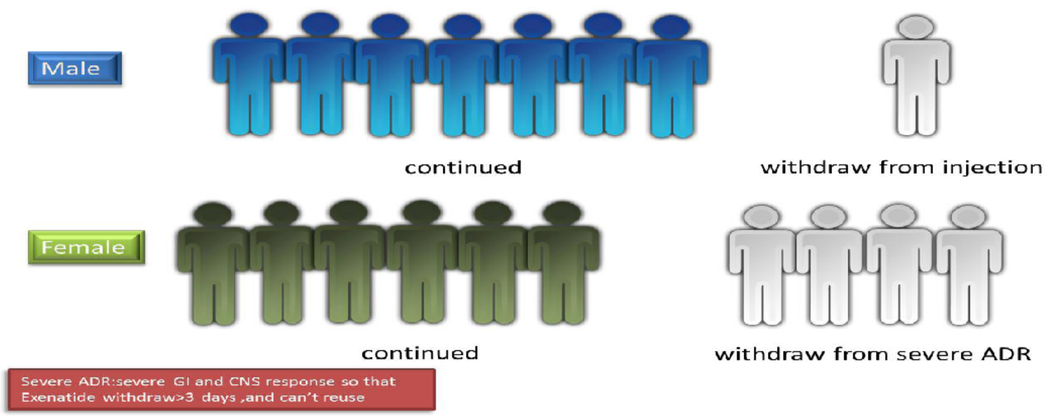


Figure 2 Exenatide withdrawal at a glance After 4 wks treatment



RESULTS

The incidence of adverse drug reaction was significantly higher in female than male patients following exenatide treatment ($P < .05$). Although there was no significant difference between the male and female group 1 week, adverse drug reactions continued longer in females and the incidence of adverse drug reaction was significantly higher in female patients 4 weeks after initiating treatment ($P < .01$). As a result, four female patients stopped taking the medication, whereas only one male patient stopped taking the medication because the patient was unaccustomed to the drug injection process. The efficacy of exenatide was similar between the two groups at both 1 and 4 weeks.

CONCLUSIONS

Exenatide, a glucagon-like peptide-1 agonist often causes relatively significant gastrointestinal reactions during its initial application. Gender difference in adverse drug reactions may be due to the impact of this drug on the feeding center in the central nervous system.

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Diabetes (complications & therapy)

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