



Severe Hypoglycemic Attacks and Remission of Type 2 Diabetes and Psoriasis Due to Acitretin

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Asitretine Bağlı Şiddetli Hipoglisemik Ataklar ve Tip 2 Diyabetes Mellitusta ve Psöriaziste Remisyon

ÖZET

59 yaşında tip iki diyabet ve psöriazis hastalığı olan kadın hasta ağır hipoglisemik ataklar ile başvurdu. Bu atakların nedeninin Asitretin kullanımı olduğu saptandı. Asitretinin kesilmesinin üzerine iki yıl geçmesine rağmen hastanın hem diyabet hem de psöriazis hastalıkları remisyonadadır. Bu durumun Asitretinin sıra dışı olarak uzun süreli kullanımına bağlı olduğu düşünüldü.

Anahtar kelimeler: Asitretin, hipoglisemi, tip 2 diyabetes mellitus, psöriazis

ABSTRACT

An 59 year old women with type two diabetes and psoriasis admitted with severe hypoglycemic attacks. Acitretin use was identified as the cause of this attacks. Two years after cessation of acitretin, she is still in remission of diabetes and psoriasis. This condition was attributed to extraordinary prolonged use of acitretin.

Key words: Acitretin, hypoglycemia, type 2 diabetes mellitus, psoriasis

INTRODUCTION

As we know Acitretin, a currently available retinoic acid derivative, can cause either hypoglycemic or hyperglycemic attacks but we could not find any case record describing such severe and prolonged hypoglycemia and remission of diabetes and psoriasis (at least for two years) due to prolonged acitretin use. With use of Etreinat, another retinoic acid derivative, which has a relatively very long half-life, Ellis et al reported that the 20-week study showed improved glucose tolerance (1).

CASE

An 59 year old women with severe hypoglycemia attacks, admitted to our unit. The patient was type 2 diabetic for six years with no alcohol or illicit drug use, and her last HbA1c level was 8.2 % six months before her hypoglycemic attacks. She discontinued her medications; Metformin 2x1000 mg and Glimepirid 1x2 mg for the last

three months due to her self recognition of low glycemic results. Two months ago the patient was admitted to the emergency room of another hospital because of sweating, weakness and confusion. Her fasting blood glucose at admission was 35 mg/dl and despite continuous 20% Dextrose infusion, blood glucose could only be reached to 70-80 mg/dl level. When the Dextrose infusion was stopped her hypoglycemia recurred during her hospitalization. She can be discharged from the hospital 20 days later with relatively stable glucose levels. Twenty days after discharge, she admitted to our hospital due to her lasting mild hypoglycemic attacks that responses to oral sugar and meals. Physical examination of the patient was unremarkable and she was not using any medication. Her past medication history includes Acitretin 1x25 mg for the last two years without physician follow-up. The dose is a usual one, not high dose but the duration is unusually long. This drug was added to her psoriatic therapy after two years of diagnosis of type 2 Diabetes Mellitus, patient used Acitretin regularly for two years until se-

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vere hypoglycemic attacks and discontinued spontaneously at that time. She declared a very good response from acitretin for her psoriasis with a complete resolution of her skin lesions and continued to take the medication without her doctor's control beyond six months. Her admission blood glucose was 69 mg/dl, HbA1C 5.2% and other routine laboratory tests were normal. The serum cortisol level was 23.6 µg/dl and her pituitary MRI was normal. Hypoglycemia could not be generated during the extended fasting blood glucose test. Insulin levels were depressed during the relative hypoglycemic episodes. Hypocortisolism and insulinoma was excluded by appropriate means. No reasonable etiology could be found for the explanation of these hypoglycemic attacks other than acitretin use. The patient was discharged without prescription of any antidiabetic drug. During the two years follow up after her discharge, her fasting blood glucose and HbA1c levels were completely normal without any antidiabetic medication, furthermore she still complains about mild hypoglycemic attacks. From the side of psoriatic activity she has no activation, and she mentioned only local self-use of ointments currently.

DISCUSSION

As we know Acitretin, a currently available retinoic acid derivative, can cause either hypoglycemic or hyperglycemic attacks but we could not find any case record describing such severe and prolonged hypoglycemia and remission of diabetes and psoriasis (at least for two years) due to prolonged acitretin use.

With use of Etretnat, another retinoic acid derivative, which has a relatively very long half-life, Ellis et al reported that the 20-week study showed improved glucose tolerance (1). On the other hand Corbetta reported that the use of short-term and low-dose acitretin increased insulin resistance and after cessation of acitretin the insulin resistance was resolved (2). Similarly Koistinen reported that his five month study with the use of 13-cis retinoic acid revealed the reduced insulin sensitivity (3). There is no study with a longer exposure for this issue in the literature. In conclusion prolonged use of acitretin may cause severe hypoglycemia attacks and prolonged remission of type 2 diabetes and psoriasis, the mechanism and clinical implications of this phenomenon may worth studies on this issue. Also we wish to alert physicians about a rare but a serious side effect of acitretin meaning prolonged treatment resistant hypoglycemia

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