

# RESEARCH ARTICLE

## A MODIFIED ATKINS DIET FOR INTRACTABLE CHILDHOOD EPILEPSY

Mohammad BARZEGAR MD<sup>1</sup>,  
Poupak IRANDOUST BSc<sup>2</sup>,  
Mehrangiz EBRAHIMI MAMEGHANI PhD<sup>3</sup>

1. Professor of Pediatric Neurology,  
Pediatric Health Research  
Center, Tabriz University of Medical  
Sciences, Tabriz, Iran

2. B.Sc. in Nutrition and Diet  
Therapy, Faculty of Medicine, Tabriz  
University of Medical Sciences,  
Tabriz, Iran

3. Assistant Professor of Nutritional  
Epidemiology- Faculty of Health and  
Nutrition- Tabriz University of Medical  
Sciences, Tabriz, Iran

Corresponding Author:  
M. Barzegar MD  
Tabriz Children Hospital, Tabriz, Iran  
Tel: 98 411 5262280  
Email: mm\_barzegar@yahoo.com

Received: 31-Oct-2010  
Last Revised: 13-Nov-2010  
Accepted: 21-Nov-2010

### Abstract

#### Objective

The aim of the present study was to evaluate the efficacy and tolerability of a modified Atkins diet for intractable childhood epilepsy.

#### Materials & Methods

Twenty one children with medically intractable epilepsy were enrolled in the study. Inclusion criteria were at least four seizures per month and a trial of at least three anticonvulsants without becoming seizure-free. The subjects received the diet over a 6-month period.

#### Results

Three months after diet initiation, 15 patients (71.4%) remained on the diet and 12 (57.1%) had >50% seizure reduction. Eleven patients (52.4%) completed the 6-month study and 8 (38.1%) chose to remain on the diet afterward. At 6 months, 9 patients (42.8%) had >50% seizure reduction. The diet was more effective in cryptogenic epilepsy ( $p=0.032$ ). Most complications were transient and successfully managed by careful follow-up and conservative strategies.

#### Conclusion

The modified Atkins diet is an effective and well-tolerated therapy for intractable childhood epilepsy.

**Keywords:** Atkins diet, ketogenic diet, intractable epilepsy, children