

## Use of ketogenic diet in children with pharmacological resistant forms of epilepsy

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### Introduction

Antiepileptic drugs (AED) considered to be the most effective method of treatment of epilepsy, but they are not only ineffective in pharmacoresistant forms, but also can make patient's condition more severe. It forced us to risk and at the first time in Uzbekistan try to use ketogenic diet in patients with epilepsy.

### Conclusion

Ketogenic diet if followed correct is proven effective method of treatment of pharmacoresistant forms of epilepsy and may be used without AED and glucocorticosteroids

### Methods and Materials

We investigated the duration of pharmacoresistant epilepsy in 7 children of Uzbek nationality aged from 2 to 9 at the first time when treated by AED, then – by glucocorticoids and after the cancellation of drugs and use only classic ketogenic diet. All of them were under the clinical examination with use of MRI, EEG with video monitoring, USD of liver and gallbladder, ketone and glucose tests. In children 3 used only glucocorticoids, in 4 children we used combination of hydrocortisone in dose 5 mg/kg and AED. Proven ineffectiveness of AED and glucocorticoids allowed us to prescribe them ketogenic diet with macronutrient ratio 4:1 that was counted by ketocalculator. Every week parents provided ketone bodies analyses in urine and measured glucose level in blood of children. Once a 3 months was performed blood analysis by gas analyzer.

### Results

In all children on EEG was noted decreased epileptiform activity, but much better results were in patients without MRI changes. Convulsions were under the control, there almost were not generalized seizures in patients with Lennox-Gastaut, West and Landau-Kleffner syndromes. Cognitive functions, when their impairment was the main symptom, also partially returned and there was observed significant progress in psychical development and social adaptation of children. There were no any case of hypoglycemic coma.