



Epilepsy Studies

Fasting-Free Ketogenic Diet Useful in Epileptic Children

NEW YORK (Reuters Health) Dec 30 - Ketogenic diets may be just as effective in treating epilepsy, and be more tolerable to children, without an initial period of fasting and fluid restriction, Korean researchers report.

Dr. Heung Dong Kim of the Yonsei University College of Medicine in Seoul and colleagues note that ketogenic diets are increasingly used to treat childhood epilepsy that does not respond to antiepileptic drugs. In the initial-fasting ketogenic diet (IFKD), fasting and fluid restriction are prescribed until ketone bodies are detected in the urine, after which high fat, low carbohydrate foods are introduced.

In the December 6th issue of Pediatrics they observe that this fasting period may be the most challenging aspect of the diet, and can lead to dehydration and other problems. "Despite its widely accepted efficacy," they say, "many families and physicians remain reluctant to initiate the KD because of its inherent difficulties and potentially serious complications."

The researchers sought to establish whether a nonfasting ketogenic diet (NFKD) might be a useful alternative.

Forty-one children were treated with a NFKD, in which their calories were gradually increased and no fasting or fluid restriction was required. The results were compared to 83 historical control patients who had been treated with the IFKD.

Among patients on the NFKD, 34.1% were seizure-free for at least three months after initiating the diet, compared to 34.9% of patients who fasted initially. The number of days until strong urinary ketosis was not significantly different between the two groups, and there was no significant difference in the incidence of hypoglycemia.

Furthermore, patients on the NFKD were significantly less likely to develop moderate dehydration than those in the control group (12.2% vs. 62.7%), and they also spent less time in the hospital.

"The fasting period is emotionally and physically difficult, and it is important to know that it can be avoided," Dr. Kim and colleagues conclude. They are now planning a prospective, randomized trial to compare the IFKD and the NFKD.

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Treatment of Children's Epilepsy by Hyperbaric Oxygenation Analysis of 100 Cases

Wong Qibiao, Wang Hongjun, Chen Linzheng, Zhao Cuiyun Hyperbaric Oxygen Treatment Center, Zhou Gulan, EEG Lab, Zhujiang Hospital

100 patients 74 males, 28 females 4 days to 14 years 84 patients between 1 month and 9 years Aetiology Birth injury 55, encephalitis 14, asphyxia 4, infection with fever 2, cerebrovascular malformation 1, unknown 23. Investigations EEG examination was undertaken in all patients. 92 clearly abnormal, 5 ?

abnormal, 3 normal. CT and MRI examinations 76 abnormal - ventricular enlargement, focal lesions, skull fracture. 24 normal. Anticonvulsant Therapy 39 patients were on anticonvulsant therapy 20 patients were on sedatives 41 not on therapy Hyperbaric oxygen therapy 35 - 45 sessions at 1.75- 2.0 atm abs for 80 minutes in a pure oxygen atmosphere

Results:

Significant effective in 68 patients, improvement in 14 patients EEG became normal in 45 patients of the 92 with abnormality Anticonvulsant/sedation therapy stopped in 43 of the 59 patients .In 82 patients parents reported improvement in intelligence and personality. Follow-up A total 76 patients have been followed for more than 3 years. 40 children who had been on drugs continued without anticonvulsant therapy. In 25 a reduction of anticonvulsant medication has been possible

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