



Service Priorities and Programmes Electronic Presentations

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Ketogenic Diet Team in A Decade

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Introduction

Up to 30-40% of patients with epilepsy are refractory to anticonvulsants. Among them, only a minority are suitable surgical candidates (both resective and palliative).

Significant number of patients live with ongoing seizures, which severely affect their quality of life. Ketogenic diet (KD) is a high fat (71-90% energy) and carbohydrate restricted (5-19% energy) diet that contains adequate amount of protein to support growth. It has been established as non-pharmacologic treatment for drug-resistant epilepsies but its use is still under-utilized in the territory.

Objectives

To describe the evolution/ development of ketogenic diet team in Prince of Wales Hospital in the past decade and how patients benefit from his programme

Methodology

Since 2007, with the help of the dietitian, we have first started KD on our hospital. Over the years, we have formed a team for successful implementation of KD and its variants. Our team members consist of paediatricians, dietitians, pharmacists and nurses. We continue to work together to improve the standard of care by:

1. Education (attending overseas meeting, clinical attachment, regional communication with other teams)
2. Setting up standard operating procedure for pre-diet information, counselling, pre-diet medical check-up and parental education, etc
3. Promotion and increase awareness of KD â€™ talks/ seminars (both in-house and local)
4. Developing local ketogenic diet recipes to enhance patientsâ€™™ compliance.

Result

Over the years, there are 34 patients who have tried KD/ modified Atkin's diet (MAD). Their age range from 7 months to 20 years (median 70 months). Eighteen of them were boys (53%). The median duration of diet was 49 days (4 days to ~10 years). Eight (23.5%) showed significant reduction of seizures and six patients were on the diet for > 24 months. At least eight patients stopped the diet because of compliance problems. Five patients had their diets commenced in intensive care unit setting when they had super-refractory status epilepticus. One of them showed apparent benefit but stopped the diet later for compliance problems. Several adult patients also benefit from MAD with significant seizure reduction.

In conclusion, KD and its variants could be useful in management of patients with drug-resistant epilepsy. Adequate counselling and practical support is essential for successful implementation. Our team demonstrates how close collaboration among disciplines could help our patients in providing alternative treatment modalities to improve their quality of life.