

INTRODUCTION

Epilepsy is one of the most prevalent children's neurological disorders.¹ The International League Against Epilepsy (ILAE) defines drug-resistant epilepsy as "failure of adequate trials of two tolerated, appropriately chosen antiepileptic drugs (whether as mono-therapies or in combination) to achieve sustained seizure freedom".² Although drug therapy is currently effective, but 20–30% of childhood epilepsies are not fully recovered or controlled. These uncontrolled epilepsies eventually develop into medically refractory cases.³ For children with refractory epilepsy, the ketogenic diet (KD) therapy has regularly been used as an effective and well-tolerated diet therapy.⁶ KD therapy has also a positive impact on children's cognition or behavior.⁷ The KD composition includes high fat, moderate protein, and low carbohydrates, which leads to metabolic alterations that resemble fasting.

OBJECTIVE

To find the effectiveness and tolerability of the ketogenic diet (KD) for Pakistan's children with refractory epilepsy

MATERIALS & METHOD

This retrospective study was conducted at Children's Hospital & ICH Multan Child Neurology Department Multan, Pakistan. Data of diagnosed patients of refractory epilepsy, not responding to at least two antiepileptic medicines (AEDs), were well-tolerated, adequately utilized, and received ketogenic diet treatment from January 2017 to December 2020 was retrieved and analyzed. SPSS 23 was used to undertake the statistical tests as percentages and frequency measurements. Pearson's chi-square test was used to investigate factors associated with the effectiveness of the ketogenic diet. Statistics were deemed significant at P 0.05.

RESULTS

A total of 55 children, including 18 girls and 37 boys, underwent the KD initiation phase. More than 72% of the children received more than two antiepileptic drugs (AEDs), and 45.5% had refractory epilepsy. The cause of epilepsy was undetermined in 45.5% of cases, and the most common seizure type was spasm (34.5%). The study found that 58.2% of the patients responded to the KD, with 27.3% achieving seizure-free status during the maintenance phase. KD therapy is safe in our children as only minor side effects, occurred in 54 % of patients.

CONCLUSION

According to the findings of our study, safe and effective therapy for Pakistani children with refractory epilepsy is a ketogenic diet combined with gradual commencement approaches.

REFERENCES

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