Abstract

Background and justification

Childhood epilepsy is associated with behvairo and emotional problems in children. These disturbances range from internalising to externalising symptoms’ is also a common association among children with epilepsy. These behaviour and emotional problems has a significant impact on disease control and quality of life in child and the family members.

This study was able to examine the prevalence of behvairo and emotional problems in epilepsy and it’s associations and prevalence of ADHD in a sample of children who presented to Lady Ridgeway Hospital for children.

Methods

This study was a descriptive cross-sectional study carried out in paediatric neurology clinics at Lady Ridgeway hospital, nonprobability consecutive sampling was done until the sample size of 100 was met. The study included children between the age of 6 and 12 who did not have a medical co morbidity except childhood epilepsy. Children and caregivers who could not comprehend Sinhalese or English were excluded from the study.

The data was collected using an interviewer administered data collection tool, strength and difficulties questionnaire-parent version, and structured clinical interview aiming to diagnose ADHD.

Data were analysed using SPSS version 17.

Results

Prevalence of behaviour and emotional problems were 43%, with ADHD clinical diagnosis 29%.Out of SDQ, emotional domain were positive in 18%,prosocial positive in 24%,hyperactive domain positive in 49%,conduct domain positive in 51% and peer domain positive in 34%.

In the impact domain, significant impact was noted in 54%, with child’s distress positive in 17%,family impact was noted in 49%,school disruption in 40%,friendship disruption in 31%,leisure disruption in 29% and home disruption in 37%.

Significant associations between behaviour and emotional problems and parameters were as follow.

Among socio-demographic and behaviour and emotional problems, gender (chi square 3.616,df1,p value 0.050) was significantly associated. Out of clinical parameters and associations of behaviour and emotional problems, duration of epilepsy( spearman’s correlation 0.224 with p value 0.025),use of antiepileptic(chi square 46.366 df 16,p value 0.000),number of antiepileptics(chi square 13.420, df 2, p value 0.001),dose frequency(13.671 df 4 p value 0.008),previous psychiatric diagnosis( likelihood ratio 27.732 df 5 p value 0.000) was significant.

Out of ADHD and socio-demographic factors none of the demographic factors were significantly associated.

Out of clinical parameters and ADHD clinical diagnosis, Age of onset(likelihood ratio 17.902 df 4, p value 0.001),antenatal/perinatal insult(chi square 5.355 df 1 p value 0.021),antiepileptics( likelihood ratio 20.366 df 8, p value 0.009),prosocial(ci square 6.535, df 2 p value 0.038),peer domain(16.018 df 2 p value 0.000),conduct domain(chi square 13.544 df 2 p value 0.001)and impact domain ( likelihood ratio 13.544 df 2 p value 0.004) were significant associations.

Externalising domain was positively associated with polytherapy, number of antiepileptics, previous psychiatric diagnosis and duration of illness- data elaborated in results section.

Internalising domain was associated with income, polytherapy, and previous psychiatric diagnosis.

Other associations of subdomains of SDQ and impact are shown in detail in results and discussion section.

Discussion and conclusion

Overall significant proportion of children with epilepsy harboured behaviour and emotional problems and met the diagnostic criteria for ADHD. Hyperactivity and conduct domains of the SDQ were significantly positive in more than half of children with epilepsy. Most of the time clinical parameters, antiepileptic related parameters, previous psychiatric diagnosis,total behaviour and emotional score and ADHD clinical diagnosis was significantly associated with many SDQ domain abnormalities including impact, child’s distress and child’s school, leisure and home disruption at SDQ.

The importance of early and repeated screening for above problems and active interventions will improve seizure disorder and quality of life of these children and family. A multidisciplinary approach is recommended in every setting to cater these complex needs.