

psychogenic non-epileptic seizures(PNES), (ii)define the most useful point of HR measurement: pre-ictal, ictal-onset, maximal-ictal or post-ictal, and (iii)define the HR cut-off points to differentiate ES from PNES.

Methods All video EEG(VEEG) at Monash Health from May 2009 to November 2015 were retrospectively reviewed. Baseline(during wakefulness), one-minute pre-ictal, ictal-onset, maximal-ictal and one-minute post-ictal HR were measured for each ES and PNES event. Events less than ten seconds or with uninterpretable ECG due to artefacts were excluded. ROC curve analysis was performed to study the diagnostic accuracy reflected by area under the curve(AUC). The AUC was interpreted as follows; ≤ 0.5 , differentiation of PNES from ES no better than chance; 0.80–0.89, good differentiation; and 0.9–1, excellent differentiation.

Results VEEG of 341 ES and 265 PNES from 130 patients were analysed. The AUC for pre-ictal, ictal-onset, maximal-ictal and post-ictal HR were found to have poor differentiation between ES and PNES. Comparing PNES and bilateral tonic-clonic ES, AUC for absolute maximal-ictal HR was 0.84(CI 0.73–0.95) and for absolute post-ictal HR was 0.90 (CI 0.81–1.00). Using Youden's index, to diagnose tonic-clonic ES, the optimal cut-off point for absolute maximal-ictal HR was 114bpm (sensitivity 84%;specificity 82%;PPV 26.7%,NPV 98.5%) and for absolute post-ictal HR was 90bpm(sensitivity 91%;specificity 82%;PPV 30.3%;NPV 99.1%).

Conclusions These findings suggest that seizure-related HR increase is useful in differentiating bilateral tonic-clonic ES from PNES. Based on the AUC, the best diagnostic measure.

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THE OUTCOME OF A COHORT OF PREGNANCIES IN AUSTRALIAN WOMEN WITH EPILEPSY

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10.1136/jnnp-2019-anzan.7

Background The Australian Pregnancy Register (APR) established in 1998, collects data concerning the hazard of foetal malformations from intrauterine exposure to antiepileptic drugs.

Methods 4 telephone interviews, ethical approval, informed consent, observational study, statistical analyses.

Results By December 2017, the APR recorded 1879 pregnancies, followed prospectively. There had been 1766 live births (94.0%), 5 stillbirths (0.3%), 54 spontaneous abortions (2.9%), and 30 induced abortions (1.6%), while 24 pregnancies had an unknown outcome due to loss of contact with the women involved (1.3%). Foetal malformations had occurred in 71 of the live-born infants. Of the induced abortions, 15 had been for intrauterine foetal death, 10 for major foetal malformation (spina bifida, anencephaly and left heart underdevelopment), 2 for detected chromosome defects and 3 for maternal reasons (major illness in 2).

By the end of the post-pregnancy year a further 99 pregnancies had become unavailable for follow-up (resulting in an 84.9% live-born infant final retention rate). An additional 33

pregnancies that had resulted in late recognised foetal malformations had been identified, nearly all in the first 6 months after birth. Intrauterine valproate exposure was involved in 447 of the 1731 antiepileptic drug treated pregnancies, a malformation-carrying pregnancy rate of 11.86%, as compared with a rate of 2.70% in the 148 drug-unexposed pregnancies (O.R. = 4.84; 95% C.I. 1.72, 13.62), used as comparators.

Conclusion This report confirms previous interpretations of the APR data, also providing insights into the pregnancies of women with epilepsy that did not result in live-born offspring.

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ASSOCIATIONS BETWEEN COMORBIDITIES AND ADVERSE EVENTS OF ANTIPILEPTIC DRUGS AND QUALITY OF LIFE: A SURVEY OF EPILEPSY PATIENTS IN AUSTRALIA

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10.1136/jnnp-2019-anzan.8

Introduction This study explored the impact of specific types of comorbidities and adverse events (AEs) from antiepileptic drugs (AEDs) on quality of life (QoL) among adult patients with epilepsy (PwE) in Australia.

Methods Cross-sectional surveys were completed by PwE, or caregiver proxies, recruited via the online pharmacy application MedAdvisor and Australian PwE Facebook groups from May–August 2018. Data were collected on demographics, epilepsy severity and management, AEs, comorbidities, and QoL (using QOLIE-10-P total score).¹ Multiple linear regression models were constructed to explore associations between AEs or comorbidities and QOLIE-10-P, with possible confounders determined using stepwise selection.

Results 978 responses were included (mean age 44.5 years, 64% female, 52% employed). 97% reported recent AED use, 47% on AED monotherapy, 35% exposed to ≤ 2 lifetime AEDs, and 55% seizure-free for >1 year. After stepwise selection, control variables included in both models were: time since diagnosis, employment status, seizure frequency, number of currently prescribed AEDs, and number of general practitioner visits per year. In the model for comorbidities, 'psychiatric disorders' was associated with the largest QOLIE-10-P decrease (-23.30, $p < 0.001$). In the model for AEs, which additionally controlled for depression and anxiety disorder, 'memory problems' was associated with the largest decrease in QOLIE-10-P (-14.27, $p < 0.001$).

Conclusions In this survey of Australian PwE, of which many had relatively well-controlled epilepsy, psychiatric and memory problems were common and associated with the greatest detrimental impact on QoL. Further research is needed to understand causality, relationships between possibly interrelated or overlapping symptoms, and management strategies. UCB Pharma-sponsored.

REFERENCE

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