

Epilepsy control project in rural China

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Background: The epilepsy control project in rural China, extended from the Global Campaign Against Epilepsy (GCAE) Demonstration Project¹, has been conducted since 2005. The aim of the National extended project were: (1) to promote public and professional education on epilepsy; (2) to raise the level of diagnosis, treatment and services of epilepsy in rural area; (3) to develop local advocacy and support groups for people with epilepsy; (4) to reduce economic and social burden of epilepsy in rural area; and (5) to set up and test the model that using public health workers to control part of convulsive epilepsy.

Methods: Sampling of the target population (County as a unit) was done by the provincial health bureaus. A multilevel working team composed of health administration officers, neurologists and public health workers were to implement the project. By using a specially designed questionnaire, the township physicians to screen out initial cases of convulsive epilepsy and they were then recruited or ruled out by supervising neurologists. Patients with convulsive epilepsy recruited were treated with phenobarbital according to the implementation protocol and followed up by township physicians regularly and they were supervised by neurologists.²

Results: The project started in May 2005, and extended in 2006 and 2007 to presently 73 counties in 15 provinces, covering a population of 41.69 million individuals. A total of 37,383 patients with epilepsy were screened, 18,469 patients with convulsive epilepsy were treated with phenobarbital. Demographic details of the convulsive epilepsy patients under phenobarbital treatment are given in Table 1. The efficacy of phenobarbital treatment, i.e., the changes in convulsive seizure frequencies in different time frame are shown in Table 2. Educational activities were carried out in project sites by using TV, broadcasting, newspaper, leaflets, blackboard, etc. to publicize scientific knowledge of epilepsy to the public.

Conclusion: The present epilepsy control project in rural China has been successful, government's commitment and financial support were key factors. This project could serve as a model in developing countries. Although side effects of phenobarbital were not serious, the impact of PB on cognitive function needs further study.

Table 1: Demographics of patients (n=18,469)

Male, number (%)	10,191 (55.2%)
Female, number (%)	8,278 (44.8%)
Mean age in years, (SD)	34.8 (15.9)
Mean duration of epilepsy in years (SD)	19.0 (12.7)
Mean frequency of seizures per year	26.1/year

Table 2: Change in seizure frequency from baseline to 6, 12, and 24 months of treatment

	Number of patients (%)		
	6 months (n=10,801)	12 months (n=7,354)	24 months (n=920)
Seizure free	3480 (32.2%)	2068 (28.17%)	168 (18.3%)
Reduced by 75–99%	1646 (15.2%)	1818 (24.7%)	325 (35.3%)
Reduced by 51–75%	1437 (13.3%)	1108 (15.1%)	155 (16.9%)
Reduced by 26–50%	864 (8.1%)	535 (7.3%)	64 (6.9%)
Reduced by < 25%	855 (10%)	494 (6.7%)	70 (7.6%)
Increased by > 25%	2519 (23.3%)	1331 (18.1%)	138 (15%)

References

1. WHO. Epilepsy management at a primary health level: protocol for a demonstration project in the People's Republic of China. Geneva: WHO, 2000.
2. Wang WZ, Wu JZ, Ma GY, *et al.* Efficacy assessment of phenobarbital in epilepsy: a large community-based intervention trial in rural China. *Lancet Neurol* 2006; 5:46–52.