

Epilepsy Treatment in Developing Countries: Constraints and Possibilities

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Editorial

Epilepsy affects 50 million people worldwide, and 80% of these people live in the developing countries. A patient with epilepsy suffers frequent seizures which may occur due to acute cerebral insults, hypoxia and electrolyte derangements, the cause of which may be chronic and multifactorial. Seizures are defined as a period of uncontrolled involuntary total body trembling. They are frequently associated with an aura which can be olfactory, auditory or visual, this aura in fact distinguishes epilepsy from syncope, where the loss of consciousness is self-limiting and produced as a result of global cerebral hypoperfusion.

Seizures may be classified as partial, involving only single portion of the body, or more generalized, involving the entire thorax, abdomen and the extremities and they may be sometimes associated with unconsciousness and faecal or urinary incontinence. Some people have recurrent episodes of seizures despite optimal treatment with wide variety of anti-epileptic drugs. More than 70% of patients who treated with suitable antiepileptics achieve long-term cure in terms of decrease in rate of occurrence of seizures episodes usually within 5 years of the diagnosis only if adequately treated with suitable anti-epileptic drugs and they attend regular follow up.

Affordable epilepsy treatment is currently made available in the developing countries and impetus is given in this aspect in their national health programmes. Accurate diagnosis of epilepsy can be done with thorough history taking of the patient and the family members witnessing the seizure and elaborate technological equipments and laboratories are not needed to reach a diagnosis. Sometimes electro encephalography may be ordered to map the focal activity of the brain provoking the seizure. Still many individuals with epilepsy in many developing countries do not receive adequate treatment

Epilepsy when untreated or undertreated is a critical public health concern, as these people face potentially many social challenges and are ostracized and the health outcome is low. Due to social taboo, many persons with epilepsy remain unemployed and receive poor education due to high school dropout and as a consequence their socioeconomic status remains low. Children with epilepsy who have a seizure while attending school may be expelled, while adults may face problems in marriage or employment. Persons with epilepsy have poor quality of health, including greater psychological problems, and are prone to more physical injuries such as frequent falls resulting in major fractures, burns, and increased morbidities.

The epilepsy treatment gap, defined as the proportion of people with epilepsy who require treatment but do not receive it, has been proposed useful tool to access the quality of care for epilepsy patients across diverse populations. Prior studies and descriptive and observational studies as well as Meta analyses suggest a treatment gap of more than 80% in many developing countries. One recent study and meta-analysis shows the treatment gap in developing countries to be 56%. This variability may be due to the methodological flaws and limitations of the previously done systematic reviews, which had an inherent weakness that was excessive narrow search strategy to find potential patients and undertreated patients, based on symptomatology and, considered only English-language articles, and used meta-analytic techniques to arrive at a population estimate of the magnitude of treatment gap.

Firstly, the search strategy was faulty focussing on a few outcome parameters like "treatment gap" and "treatment status". Many epilepsy prevalence studies reported treatment data, but as the term "treatment gap" is a nascent approach in this field of research. Literature estimate of the treatment gap may be biased because of two reasons: firstly, there was significant unexplained variability in the treatment gap estimates, and second, such studies included trials which were conducted in populations that were not having the patient profile as encountered in developing countries.

Epilepsy is not uncommon and potentially lethal neurological disease that can be diagnosed easily and treated inexpensively with limited healthcare infrastructure facilities. Many developing countries have undertaken novel efforts to decrease the epilepsy treatment gap, such as the Global Campaign against Epilepsy, in collaboration with organizations like The International League against Epilepsy, The International Bureau for Epilepsy and the World Health Organization. Large community based trials in Brazil and China have shown that epilepsy can be controlled and cured with inexpensive and effective antiepileptic drugs at the community level by primary health care providers with minimal requisite training. Increased interest and efforts need to be shown by the global health community to reduce the treatment gap and thereby reduce the deleterious social consequences. People need to be made aware that patients with epilepsy are equally competent, when their treatment is adequate and they do turn up for regular follow up and the social stigma about epilepsy need to be abolished by appropriate community education, which in turn will create a resourceful population in developing world.