Letter to the Editor

Tolperisone hel and the quality of life of neurolathyrism patients in rural Ethiopia

Dear Editor,

Neurolathysism (NL) is a central motor disorder caused by excessive and prolonged consumption of the grass pea, *Lathyrus sativus* which contains the glutamate analogue excitatoxin ß-N=oxalyl=a, ß-Diaminopropionic acid (1). It also exists in a form of epidemics during times of food shortages as in flooding and famine primarily affecting the poor deprived farming communities (2,3). The disease is endemic in Ethiopia and the Indian sub-continent.

There is no established mode of treatment for Neurolathyrism. But the central muscle relaxant Tolperisone Hcl (Mydocalm: Chemical name=2, 4-dietyl- 3-piperidinopropriophenone, Gedeon Richter, Budapest, Hungary) was reported to be effective in alleviating the symptoms of NL in Bangladesh (4) and Ethiopia (5). But there was no report about the impact of the drug on the life of the patients who are hard-pressed to lead a very difficult life without any medical and rehabilitative service. And hence we have investigated some effects of the drug on the life quality of life of the patients and recorded their perspective.

The study was conducted between January and March 1996 in the rural Estie health centre of South Gondar, Northern Ethiopia. A questionnaire was employed to collect baseline information and to follow patients for subjective and objective assessment.

A total of 16 patients were randomly selected and included in the study and followed for 12 weeks receiving Tolperisone HCI 150 mg per so twice daily with a weekly follow up at the health centre. Fourteen (87.5%) were males and 2(12.5%) were females. The mean age was 18.5 years (Range=13-50). The classification system of NL after Acton modified by Tejke Gaunabit was used to categories patients according to their disability (2). Six patients each were in Stage I (no stick) and Stage II (one stick). Four patients were in Stage III (two sticks). Patients in Stage IV (crawler) were not included in the study.

It was found that muscle ache, heaviness of legs, flexor spasm and repeated falling accidents showed significant improvement in majority (75%) of patients by the end of 8^{th} week of treatment. When the need for support is considered, four patients who used one supporting cane (stage II) have virtually left their stich at the end of the treatment. Likewise one patient in stage III (two stick) left one of the sticks. All the patients in stage I and half in Stage II (56% of the total) reported to take newer farming tasks with in eight weeks of the treatment.

Overall assessment 14 (87.5%) of patients disclosed to have a very good improvement in their disability after the treatment. Muscle power, sustained ankle clonus and adductor stiffness were improved or absent in all the patients by the end of the study. Walking ability was very much improved in 87.5% of patients at the study. No patient discontinued the drug for side effects.

Fifteen of the 16 patients were interviewed and examined 12 months after the study. By then it was only in 40% of the patients that had muscle ache, flexor spasms and heaviness of legs remained improved after the treatment. All the patients who left their supporting cane while on Toperisone started to use it again few weeks after the cessation of the drug. All the patients were willing to continue the drug for its benefits even one year after the study.

Our conclusion is that Telperisone Hcl in a maintenance dose of 150 mg per os twice daily is tolerable in the symptomatic treatment of NL and improveving the physical disability of patients in the earlier stages of the disease.

Acknowledgement

The Gideon Richter of Budapest, Hungary is acknowledged for providing the drug free of charge through the neurology unit of the Addis Ababa University. The patients in the study are also gratefully acknowledged.

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