Letter to the editor

Baclofen treatment for intractable hiccup

Sir,

Hiccup is defined as involuntary contractions of the diaphragm and auxiliary respiratory muscles, followed by glottic closure, thereby producing a typical "hiccuping" inspiration. Hiccup is a physiologic phenomenon, existing even during gestation. Acute hiccup is distinguished from chronic intractable hiccup which is defined by duration, lasting for more than one month[1].

Idiopathic hiccup has its origin either in the gastrointestinal tract or in the central nervous system at the supraspinal and spinal level. Its incidence is unknown but it has been suggested that seven cases per year could be expected in a large tertiary care setting[2]. Intractable hiccup may be related to serious underlying disorders such as pancreatic carcinoma. It has also been described as an uncommon complication of AIDS and esophageal candidiasis. Midazolame and dexamethazone are the drugs most commonly associated with iatrogenic hiccup.

Treatment of this condition is largely empiric. Many drugs including chloropromazin, metoclopramide, valproic acid, nifedipine, nimodipine, haloperidol, and lidocaine have been used. Even marijuana and antisecretory drugs including H2 receptor antagonists and Proton Pump Inhibitors, as well as breathing pacemakers have been tried with various rate of success[3-6]. Currently Baclofen, either alone[7-9] or in combination with cisapride and antisecretory drugs[10,11] is considered to be the drug of choice.

We report here a patient with intractable hiccup for up to 3 years, who responded extremely well to Baclofen treatment. This is the first report in the Greek literature concerning treatment of intractable hiccup with Baclofen. A 70-yr-old man was referred to our department because of intractable hiccup of two years' duration. A number of treatment attempts with chloropromazine, metoclopramide, antisecretory drugs and lorazepam were unsuccessful. Buclofen was started at a dose of 5 mg three times a day. After five days hiccup was completely resolved. The favourable result remained so during the 4 months of maintenance treatment. No side effects were noticed. One year later he developed a rectal carcinoma. A abdominoperineal excision was carried-out. On the third post-surgical day the hiccup started again. Introduction of Buclofen (5 mg three times a day) resulted in complete resolution of hiccup. The patient is now under maintenance treatment with Baclofen with satisfactory clinical results. No side-effects have been noticed during the long period of maintenance treatment.

Buclofen, an analog of gamma-aminobutyric acid (GABA), is an inhibitory neurotransmitter that acts on presynaptic motor neurons at the spinal level and produces a central antispastic response. It is believed that its action in hiccup is caused by a central nervous system effect.

A number of recently published case-reports[6-11] have suggested that Buclofen may be an effective treatment for this condition. It appears to be the agent most efficacious in the treatment of chronic hiccup. The commonest side-effect reported so far is sedation. However, insomnia, dizziness, weakness, ataxia, and confusion can also occur. It must be emphasized that following regular use, abrupt discontinuation can lead to withdrawal symptoms, such as seizure. Therefore gradual discontinuation is recommended.

In conclusion the case reported here supports the efficacy and safety of Buclofen in difficult cases of intractable hiccup. We suggest its use in case of intractable hiccup at a dose of 5 mg every eight hours for a long period of time.

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REFERENCES

1. Federspil PA, Zenk J. Hiccup HNO 1999; 47:867-875.
2. Souadjian JV, Cain JC. Intractable hiccup: etiological factors in 220 cases. Postgrad Med 1968; 43:72-77.
3. Hernandez JL, Fernandez-Miera MF, Sambedro I, Sanroma P. Nimodipine treatment for intractable hiccups. Am J Med 1999; 106:600.
4. Quigley C. Nifedipine for hiccups. J Pain Symptom Manage 1997; 13:313.
5. Gilson I, Busalacchi M. Marijuana for intractable hiccups. Lancet 1998; 351:267.
6. Dobelle WH. Use of breathing pacemakers to suppress intractable hiccups of up to thirteen years duration. ASAIO J 1999; 45:524-525.
7. Marino RA. Baclofen therapy for intractable hiccups in pancreatic carcinoma. Am J Gastroenterol 1998;93:2000.
8. Walker P, Watanabe S, Bruera E. Baclofen, a treatment for chronic hiccup. J Pain Symptom Manage 1998; 16:125-132.
9. Oneschuk D. The use of baclofen for treatment of chronic hiccups. J Pain Symptom Manage 1999; 18:4-5.
10. Petroianu G, Hein G, Petroianu A, Bergler W, Rufer R. Idiopathic chronic hiccup: combination therapy with cisapride, omeprazole and Baclofen. Clin Three 1997; 19:1031-1038.
11. Marien K. Havlak D. Baclofen with famotidine for intractable hiccups. Eur Respir J 1997; 10:2188.