

Dermatol 1999;38:140-1.

5. Cortina P, Garrido JA, Tomas JF, Unamuno P, Armijo M. 'Flagellate' erythema from bleomycin with histopathological findings suggestive of inflammatory oncotoxicity. *Dermatologica* 1990;180:106-9.

Hiccups following steroid oral mini-pulse (OMP) therapy

Sir,

Oral mini-pulse therapy (OMP) with corticosteroids has been successfully used for the treatment of alopecia areata with minimal side effects.¹ Persistent hiccups is a rare complication of oral and intravenous corticosteroid therapy.² We report a case who developed hiccups following betamethasone OMP, a side effect that has not been reported earlier.

A 22-year-old man presented with alopecia areata on the scalp of six months' duration. It was progressive both in terms of size and number of lesions. He gave no history of atopy, hypertension or diabetes. He had been intermittently applying various topical corticosteroids and salicylic acid and had been injected intralesional triamcinolone twice, but without any improvement. His routine hematological and biochemical tests and urine analysis were normal.

He was started on 5 mg betamethasone, as a single oral dose after breakfast, on two consecutive days per week. On the second day after consuming the tablets, he reported with persistent hiccups. He was treated with antacids, domperidone 10 mg orally and injection chlorpromazine. The hiccups stopped after two days.

A hiccup is a distinctive sound caused by the contraction of inspiratory muscles terminated abruptly by closure of the glottis. Brief episodes may occur due to gastric distension, a sudden change in temperature, ingestion of alcohol, excess smoking or excitement. Persistent hiccups may be due to a structural lesion or infection of the central nervous system, diaphragmatic irritation, metabolic derangement, vascular lesion, or intra-abdominal infection. Drugs, including barbiturates and sedatives, and general anesthesia may cause hiccups.³ Hiccups have been reported as a side effect

of intravenous dexamethasone cyclophosphamide pulse therapy.⁴

Our patient was started on betamethasone OMP for progressive alopecia areata and subsequently developed hiccups. The sudden intake of a high dose of corticosteroids may have caused gastric irritation and hiccups. It has also been proposed that corticosteroids lower the threshold for synaptic transmission in the mid-brain and directly stimulate the hiccup reflex arc.²

Various remedies like swallowing dry granulated sugar or vinegar; sudden pain or fright; pharyngeal irritation; breathing into a closed paper (not plastic) bag; holding the breath and increasing pressure on the diaphragm; sips of iced water; stomach washes; tongue traction; lifting the uvula with a cold spoon; and drugs like antacids, chlorpromazine, haloperidol, metoclopramide, domperidone, quinidine, phenytoin, valproic acid, nifedipine, amitriptyline and baclofen have been advocated in the management of hiccups.⁵

Although a rare adverse effect of corticosteroids, hiccups can be distressing. One should be aware of this complication and its management.

S. Chidambara Murthy, M. M. Udagani

Department of Skin and STDs, S. N. Medical College and H.S.K Hospital and Research Centre, Bagalkot, India.

Address for correspondence : Dr. S. Chidambara Murthy, Department of Skin and STDs, S. N. Medical College and H.S.K Hospital and Research Centre, Bagalkot, India.
E-mail: chidumurthy@rediffmail.com

REFERENCES

1. Pasricha JS, Kumrah L. Alopecia totalis treated with oral mini-pulse therapy with betamethasone. *Indian J Dermatol Venerol Leprol* 1996;62:106-9.
2. Dickerman RD, Jaikumar S. The hiccup reflex arc and persistent hiccups with high dose anabolic steroids: Is the brainstem the steroid-responsive locus? *Clin Neuropharmacol* 2001;24:62-4.
3. Friedman LS, Isselbacher KJ. Nausea, vomiting and indigestion. In: Fauci AS, Braunwald E, Isselbacher KJ, et al, editors. *Harrison's Principles of internal medicine*. 14th ed. New York: McGraw-Hill; 1998. p. 231.
4. Kanwar AJ, Kaur S, Dhar S, Ghosh S. Hiccup - a side effect of pulse therapy. *Dermatology* 1993;187:279.
5. Patial RK. Baclofen in the treatment of intractable hiccups. *J Assoc Physicians India* 2002;50:1312-3.