Budesonide for IBD

Inflammatory bowel disease (IBD) is commonly treated with antimicrobials and immunomodulatory drugs, as well as hypoallergenic diets. The most commonly used drugs are corticosteroids, cyclosporine, and azathioprine accompanied by tylosin, oxytetracycline, or metronidazole. The most frequently used glucocorticoids in dogs with IBD are prednisone and dexamethasone. Budesonide is a nonhalogenated corticosteroid with a high affinity for glucocorticoid receptors, high hepatic clearance, and high local and low systemic activity. Budesonide could be useful for treating various forms of IBD in dogs intolerant of prednisone or dexamethasone. A drug combining potent local activity with minimal systemic effects would be beneficial in these patients.

This study evaluated the pharmacokinetics and clinical efficacy of budesonide in 11 client-owned dogs with moderate or moderate-to-severe IBD. The dogs were evaluated before treatment and on days 20 and 30 after treatment initiation. Each dog received a controlled-release formulation of budesonide (3 mg/m^2 PO q24h) for 30 days. Plasma and urine concentrations of budesonide and 16-α-hydroxyprednisolone were evaluated on days 1 and 8 of treatment. Budesonide was rapidly absorbed and metabolized in these dogs. Drug accumulation was gradual and an adequate therapeutic response was noted with no adverse events during the study.

From the Editor in Chief

Commentary

Budesonide is a glucocorticoid steroid that was introduced to the human medicine market several years ago, primarily as an inhalant for treating asthma and allergic rhinitis; an oral form is also used to treat Crohn's disease (granulomatous enterocolitis-IBD). The drug has a high first pass metabolism, evading many adverse events associated with other glucocorticoids. It has been used by some veterinary gastroenterologists to treat IBD, particularly if the patient is resistant to glucocorticoid therapy or shows excessive negative steroid effects. Cyclosporine, however, is often the second line of treatment in many refractory cases. There are cost issues with both of these drugs.

What is the take-home for this study? At the dose used (3 mg/m^2), the drug was effective in most dogs in this study without adverse glucocorticoid events. Should it be tried in patients resistant to dietary change, fenbendazole, and prednisone? Yes, even though it may not work in all cases for reasons discussed in the paper. However, cyclosporine may be tried first. *—Colin F. Burrows, BVetMed, PhD, Hon FRCVS, DACVIM*

Source

Plasma concentrations and therapeutic effects of budesonide in dogs with inflammatory bowel disease. Pietra M, Fracassi F, Diana A, et al. *AM J VET RES* 74:78-83, 2013.

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