Corticosteroids in Advanced Cancer

Review Article [1] | February 01, 2001
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Drs. Wooldridge, Anderson, and Perry have succinctly reviewed the use of corticosteroids in patients with advanced cancer. The common uses of corticosteroids—namely, the treatment of nausea and vomiting, hypersensitivity reactions, and appetite stimulation—are well covered. In addition, the use of corticosteroids for the treatment of spinal cord compression and bone pain are also reviewed. The authors provide a definitive summary of the available published literature.

Corticosteroids for Non-Hodgkin’s Lymphoma

The review of the antitumor activity of corticosteroids in non-Hodgkin’s lymphoma is remarkably brief and does not do justice to the large database of literature from the 1980s on the density of corticosteroid receptors and the benefit of corticosteroid therapy in this important group of patients. Among the publications specifically worth mentioning are a study by Shipman et al[1] and a review by Bloomfield.[2]

Corticosteroids for Hormone-Refractory Prostate Cancer

Likewise, in the section on hormone-refractory prostate cancer, the authors should have included two randomized trials, one by a Canadian group led by Tannock[3] and the other by the Cancer and Leukemia Group B (CALGB).[4] In the CALGB trial, the outcome of 120 patients treated with hydrocortisone was compared to approximately 120 patients treated with mitoxantrone (Novantrone) and hydrocortisone. Their results corroborate the 1996 data of Tannock et al and more precisely define the low rate of steroid- and prostate-specific antigen (PSA)-induced declines, as well as the objective response rate in this patient population. The CALGB study did not show as much improvement in quality of life as the study by Tannock et al.

A third, unpublished trial compared prednisone to the retinoic acid-stimulating agent liarozole. Results showed that prednisone therapy was superior to liarozole therapy. Together, these three papers establish a strong role for corticosteroids in the treatment of hormone-refractory prostate cancer.

A remaining question concerns whether high doses of corticosteroids are more effective than low doses. This seems unlikely, given the very high-dose steroid trial conducted by Weitzman et al.[5] In that study from Columbia Presbyterian Medical Center, New York, a total of 12 patients received 60 mg of dexamethasone 1 day every 3 weeks prior to starting docetaxel (Taxotere) and estramustine (Emcyt). None of the patients treated with dexamethasone had a PSA decline greater than 50%, and the median PSA increase was 47%. Thus, protracted weekly steroid dosing in prostate cancer patients receiving weekly docetaxel or paclitaxel (Taxol) may not contribute to the antitumor activity and may in fact, have long-term negative immunologic effects. The authors do not warn against that immunologic toxicity.[6]

Corticosteroids for Bleomycin-Induced Pulmonary Toxicity

The role of corticosteroids in ameliorating chemotherapy-induced lung disease is well covered. The authors do not mention that corticosteroids may prevent bleomycin (Blenoxane)-induced pulmonary disease. Corticosteroids used to prevent nausea and vomiting by cisplatin (Platinol) as part of the
PEB (Platinol/etoposide/bleomycin) regimen for testicular cancer may have that unanticipated benefit.[7]

Prior to the widespread use of corticosteroids for cisplatin-induced nausea and vomiting, striking differences in pulmonary toxicity were seen between experiences with PVB (Platinol/vinblastine/bleomycin) in Germany, where corticosteroids were routinely used, and in the United States, where corticosteroids were rarely used. No firm conclusions could be drawn from those noncomparative data, but the widespread prophylactic use of corticosteroids may have eliminated, or at least dramatically reduced, the rate of bleomycin-induced pulmonary toxicity.

**Conclusion**

The authors have done an excellent job of reviewing the common uses of corticosteroids for patients with advanced malignancy. The vital role of corticosteroids in the treatment of prostate cancer—both as a standard therapeutic agent and in the palliation of advanced cases with bone pain and cachexia—should be reemphasized. Corticosteroids have a firm and unshakable position in the care of patients with advanced cancer.

**References:**


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