right eye), and glaucoma of the left eye by raising the episcleral venous pressure.

Seven months after heart-lung transplantation, the patient is in good shape and the ophthalmologic complaints have been completely relieved. Ophthalmologic examination is nearly normal. Only minor glaucoma of the left eye persists.

This letter emphasizes the deleterious effects of prolonged venous hypertension on the eyes in a patient with PPH of the thrombotic type.

G. Van Camp, M.D.;
M. Renard, M.D.;
C. Verougstraete, M.D., and
R. Bernard, M.D.,
Saint Peter's University Hospital
Brussels, Belgium

REFERENCE
1 Rich S. Primary pulmonary hypertension. Prog Cardiovasc Dis 1988; 31:205-28

Pleural Involvement in Hairy Cell Leukemia Response to Recombinant Interferon-Alpha

To the Editor:

Hairy cell leukemia is almost invariably characterized by splenomegaly and cytopenia. Complications include infection and bleeding, as well as autoimmune syndrome and paraproteinemia.1

We report a patient with hairy cell leukemia who presented with respiratory complaints due to specific pleural involvement (a complication not previously described) and who benefitted from treatment with recombinant interferon-alpha.

A 75-year-old man with a ten-year history of hypertensive and ischemic cardiopathy presented with sudden onset of dyspnea and right knee pain, together with low-grade fever. Physical examination disclosed a large right pleural effusion, right knee arthritis and a palpable spleen 3 cm below the left costal margin. White blood cell count was 1,800/cu mm, with 46 percent lymphocytes and 3 percent hairy cells. Pleural fluid was hypercellular (1,000 cells/cu mm) with 56 percent lymphocytes. Pleural and bone marrow biopsy revealed massive infiltration with hairy cells. Cultures of pleural and knee fluid were sterile. Interferon-alpha 2b was initiated at a daily dose of 4 million units subcutaneously. Gradual improvement was noted, with regression of dyspnea and pleural effusion, as well as splenomegaly. Cytopenia improved; white blood cell count was 3,100/cu mm at three months, with 34 percent lymphocytes and no hairy cells. Interferon-alpha 2b was continued at the same dose on a three-times-weekly regimen.

The indication for splenectomy, generally considered the treatment of choice in hairy cell leukemia, is very controversial. Increasing experience with interferon-alpha therapy suggests that splenectomy can, in some cases, be delayed or proposed as second-line therapy.2 Specific involvement of the pleural space by hairy cells is very uncommon, although it is a well-known complication of other lymphoid hematologic malignancies. In our patient's case, poor general status and severe respiratory impairment at presentation did not permit splenectomy. Interferon-alpha 2b led to marked improvement of his general and hematologic condition, as well as reduction of the pleural involvement. This case emphasizes the value of medical therapy in severe cases of hairy cell leukemia.

François Raffi, M.D.;
Geneviève Magaud;

REFERENCES
1 Westbrook CA, Gold GW. Clinical problems in hairy cell leukemia: diagnosis and management. Semin Oncol 1984; 11:514-22

Control of Dyspnea in Advanced Cancer Patients

To the Editor:

Dyspnea is a symptom which seriously affects quality of life in advanced cancer patients.1 They alone can describe the intensity and characteristics of such a symptom which, if not relieved, tends to create a state of anxiety, discomfort and a feeling of imminent death which is bound to worsen in time.2

In the majority of cases, dyspnea presents itself associated with pain.3 In our experience, only 20 percent of cancer patients not treated with opioids have dyspnea without pain.

We verified the validity of a treatment used for the control of dyspnea in very advanced patients without physical pain who were cared for at home. The treatment consists of the administration of two drugs, morphine and chlorpromazine, used at the effective minimum dosages (10 mg of morphine hydrochloride i.m. and 25 mg of chlorpromazine); the former reduces the perception of hypoxia and hypercapnia in high respiratory centers,4 while the latter acts on the control of psychomotor agitation, and nausea and vomiting due to morphine, on the depression of respiratory centers and on the emotional dissociation from the environment.5,6

Clinical evaluations were carried out by health staff and subjective perceptions were referred by patients; invasive methods of evaluation, which are in contrast with the philosophy of palliative care in the advanced phases of the disease, have been excluded.7

Patients' subjective perceptions have been recorded by means of VAS® before treatment and after 15', 30', 60', 120' and 180'. At the same time respiratory frequency, heart rate, arterial blood pressure, peripheral cyanosis, posture and lucidity have been assessed through the Mini-Mental State Examination.8

A group of five patients who were no longer responsive to specific anticancer treatments and did not benefit from the use of bronchodilators, analgetics and cardiotonics, were administered the two drugs with satisfactory subjective and objective results.

Besides the validation of such a drug association, the authors are now considering carrying out a study on the separate action of these two drugs, but wonder if it is ethically correct to experiment with the two drugs separately, considering that when associated, they brilliantly solved a dramatic situation in patients already exhausted beyond the limits of endurance. The authors also question whether their prevalence data on pain-dyspnea association in advanced cancer patients are comparable to those of other centers.

Vittorio Ventafredda, M.D.;
Elio Spoldi, M.D., and
Franco De Conno, M.D.,
Pain and Palliative Care Service.