scattered pattern involving mainly the bone marrow, liver, spleen and lymph nodes. However, the compact localization of these cells forming tumor masses is a rare occurrence.

It has been well documented that patients with Waldenström's macroglobulinemia are predisposed to a variety of pulmonary infections. However, tumor formation by the neoplastic cells in the lungs is indeed a rare presentation. McCallister and colleagues' review of 227 cases did not include any such instance. Furgerson et al reported an autopsy case with pulmonary involvement consisting of fine nodular infiltrates, as well as large areas of confluent infiltration of the lungs due to proliferation of plasmacytoid neoplastic cells, similar plasmacytoid cells being seen in the bone marrow. Moeschlin also documented a case of pulmonary involvement by antemortem lung biopsy also with marrow involvement. Recently, Rabiner et al reported a patient with early bronchial and pulmonary involvement with negative bone marrow. In the few previously reported cases of pulmonary tumor in Waldenström's macroglobulinemia and in the present one, histopathologic findings disclosed the classic spectrum of the neoplastic lymphoproliferative cells, the predominant lymphocytoid plasmaocyte, other types of lymphocytes, plasma cells and primitive reticulum cells. The relation between clinical symptoms and the degrees of serum hyperviscosity in Waldenström's macroglobulinemia have been discussed by Fahey and others. The beneficial effect of plasmaphoresis on hyperviscosity syndrome has been known for some time and was well demonstrated in our patient. The efficacy of chlorambucil therapy is documented by McCallister and others. Relapse frequently occurred following discontinuation of chlorambucil with inability in some cases to induce a second remission when the drug is readministered. In the present case, somewhat over two years of continuous chlorambucil therapy has resulted in abolition of symptoms, control of the hyperviscosity syndrome, resolution of the hepatosplenomegalgy, decrease in the size of the pulmonary mass and disappearance of the funduscopic abnormalities.

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Pentazocine Addiction causing Bacterial Endocarditis and Pulmonary Embolism*

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An emotionally unstable medical technician, without prior history of drug dependence who developed pentazocine addiction, is described. Chronic, unsupervised, intravenous use of crushed tablets of pentazocine caused bacterial endocarditis, pulmonary embolism, and pulmonary edema-like picture. Our patient illustrates that even in the absence of past history of drug dependence, the use of pentazocine should, at best, be avoided in emotionally unstable patients, and patients with easy access to the drug.

Pentazocine (Talwin), a weak narcotic derived from the benzomorphans nucleus, has been described as a potent nonaddictive analgesic. Over the past five years, a number of reports have described patients who developed addiction to the drug. This communication will

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describe a patient with pentazocine addiction who had no history of drug dependence. We will point out the hazards of pulmonary embolism and bacterial endocarditis in chronic unsupervised intravenous use of the drug.

**Case Report**

The patient, a 29-year-old medical technician, was first hospitalized for pulmonary embolism secondary to thrombophlebitis of the lower extremities. Pentazocine was used as an analgesic. Anticoagulation therapy was started with heparin, and treatment was continued with Coumadin (sodium warfarin). Heparin therapy was again administered five months later because of recurrent bouts of chest pain, dyspnea and palpitation. During this interval she had started taking pentazocine of her own accord, using first oral, intramuscular and later intravenous routes. Following an episode of syncope associated with dyspnea, a lung scan showed a perfusion defect in the right middle and lower lobe. She refused to have inferior vena cava ligation. After the femoral vein ligation, the chest pain ceased dramatically. Two days later, the patient began complaining of exacerbating leg pain, localized to both calf and thigh areas. Several attending physicians had felt from the beginning that she had an intense psychic overlay, and a psychiatrist was consulted. Physicians had felt from the beginning that she had an emotional overlay, and a psychiatrist was consulted. With the help of hypnosis and posthypnotic suggestion, she made her easy prey to addiction. Repeated intravenous injections under not so ideal conditions for asepsis amply explain the right-sided endocarditis and multiple pulmonary emboli. That a pulmonary edema-like picture presented after intravenous injection of the crushed tablets dissolved in saline solution is of particular interest. The intravenous injection of the insoluble filler substances present in the tablet may have caused multiple micropulmonary emboli, or the inert substances may have evoked an allergic type of generalized alveolitis or vasculitis, giving rise to a pulmonary edema-like picture. The chest pain encountered soon after the injection of the crushed tablets of pentazocine has also been observed in addicts using intravenous injections of crushed tablets of methadone and amphetamine. This case illustrates and lends support to the thesis that the use of pentazocine should be avoided in persons having emotional instability and easy access to the drug, even when there is no history of drug dependence.

**References**